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ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2351



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EUROPEAN CEMA COUNTRIES' ECONOMIC DEVELOPMENT AT BEGINNING OF 1980'S EXAMINED

Budapest KOZGAZDASAGI SZEMLE in Hungarian No 10, Oct 82 pp 1256-1265

[Article by Ervin Pocs]

[Text] During the 1970's, in the European CEMA countries the sources of economic growth were limited or depleted--in accordance with each country's degree of economic development and specific conditions--and their external conditions became more difficult. The task of these countries, to be performed simultaneously and within a relatively short time, can be summed up as follows: they must modify their path of economic development and allow its intensive characteristics to unfold, which will be of epochal significance; and they must also ward off or curb the hardships and threats of the intensifying protectionism that stems from the oil price shock, the recession in the capitalist countries and the fierce competition on commodity markets. All this requires the streamlining of manpower management and investment activity, the acceleration of technical development and of the rise of productivity, the modernization of the product structure and the reduction of inputs--in other words, an increase of the entire economy's effectiveness and of its ability to compete internationally. Successful transition to the new path of economic development that is based on qualitative factors necessitates changes in the entire system of the economy's management, in the price system and system of regulation as well as in the system of organization, and it also demands maximum utilization of the planned economy's entire arsenal of instruments.

Amidst the changed external and internal conditions, most of the European CEMA countries continued to rely on stepped-up investment activity and to press for relatively rapid economic growth. The population's income rose rapidly. The economy's export-orientation was maintained, and this was accompanied by a rapid expansion of import. In comparison with the rapid quantitative growth, however, the characteristics of intensive development did not evolve and spread fast and widely enough; the economic organizations did not feel sufficiently the effect of the worldwide changes in market conditions and in the conditions of economic activity, and therefore their adjustment to these changes proved slow. Because of the recession in the capitalist countries, not even the continuing stepped-up investment activity was able to increase national competitiveness fast enough to compensate for the expansion of import and the rapid rise of import prices. Several countries were forced to borrow heavily abroad. In the 1970's, amidst the more difficult conditions, the systematic and relatively rapid rise of personal incomes continued, while it was increasingly more difficult to ensure the consumer goods and services to offset the rise in personal incomes.

By the end of the decade, restoration of economic equilibrium, and of external economic equilibrium in particular, became the main concern of economic policy in more and more of the European CEMA countries, with emphasis on the qualitative factors of economic development (improvement of effectiveness, modernization of the production structure, and reduction of the material- and energy-intensity). Quantitative growth of the economies slowed down in comparison with the preceding period, and domestic spending (investment, inventory accumulation, and consumption) was better coordinated with the economies' potential. Emphasis shifted from the rate of economic growth to the substantive questions of economic development. In accordance with the objectives of economic policy, significant changes were made in the system of economic instruments, and especially in the system of management and system of economic incentives. These changes reflected national peculiarities, due to the differences in economic and political conditions and in economic geography.

Parallel with the significant successes in the realization of economic-policy objectives that in many respects were new ones, the changeover to the qualitative path of economic development raised a number of problems, and stresses accumulated in some of the countries. The problems were caused on the one hand by the worsening external economic conditions, and on the other by domestic conditions (earlier mistakes in economic policy, slow adjustment to the processes of the world economy, and slow and not sufficiently widespread evolution of the processes of intensive economic development).

Efforts to restore external economic equilibrium in 1979-1980 coincided with the second oil price shock. The socialist countries, with the exception of the Soviet Union, were affected unfavorably by the fact that the second oil price shock triggered a chain reaction of increases in the prices of energy sources, various raw materials and semifinished products on the capitalist world market. The external economic situation was rendered more difficult also by the worsening possibilities of selling on capitalist markets. The favorable effect that the reduction of the balance-of-trade deficit, achieved at considerable effort, had on the balance of payments was reduced to a minimum or wiped out by interest payments that rose in the meantime and represented an increasing burden.

The rise in the prices and costs of energy sources and raw materials, the expansion of production and the limited possibilities of procurement intensified the problems that stemmed from manufacturing's high energy and raw-material intensity and were closely related to the well-known difficulties of technical development, of increasing productivity and effectiveness, and of modernizing the production structure. The structural crisis in the developed capitalist countries and the emphasis on the qualitative factors of economic development prompted from the side of demand the production structure's modernization and a reduction of the inputs of materials and energy.

Thus the basic common source of the economic problems was twofold: on the one hand the unfolding qualitative, effectiveness-oriented development and the intensification of the processes enhancing a sustained improvement of external economic equilibrium did not always compensate for the slower rate of economic development; on the other hand the improving performance of the European CEMA countries's economies, even in combination with the cutbacks in domestic spending, was unable to keep pace with the unfavorable, resource-limiting effect of the rapidly deteriorating external conditions (more recently, with the curbing of credit).

For 1981, most European CEMA countries planned growth rates of 3 to 5 percent, lower than the growth rates in years past, but slightly higher than the actual rates of economic growth reported for 1980. However, the external and domestic economic conditions became worse than had been expected. The recession in the capitalist countries dragged on, the conditions of trading with and borrowing from the capitalist countries continued to worsen, and the protectionist tendencies intensified.

The socioeconomic problems in Poland not only led to domestic crisis but also affected CEMA and East-West cooperation. Unfavorable weather--particularly in the Soviet Union--again presented a severe test for the agricultural sector. Under the combined effect of all these factors, economic development differed fairly significantly by countries. The growth rate of national income was the highest (5 percent) in the GDR, attaining the planned growth rate and higher than the average for the preceding years. In Bulgaria, Romania, the Soviet Union and Hungary national income increased by 2 to 3 percent, a significant shortfall from the planned growth in the first two countries, but close to target in the last two. In Poland the economic situation deteriorated further: national income dropped by 13 percent, while the economy's external and domestic economic equilibrium was disrupted by the events in conjunction with the sociopolitical crisis. (See Table 1.)

Table 1. Development of National Income (Year-on-Year Percentual Change)

(1) Ország	1976 -	(3) tény	1981	1981	1982
	1980 (2) átlaga (tény)				
	(2)	(3)	(terv)	(tény)	(9) (terv)
Bulgária	6,1	5,7	5,1	3,2	3,6
(4) Csehszlovákia	3,7	2,7	2,8	0,1	0,6
(5) Lengyelország	1,3	-8,0	..	-13,0	..
(6) Magyarország	3,2	-0,8	2,0 - 2,5	2,0	1,0 - 1,5
(7) NDK	4,1	4,2	5,0	5,0	4,8
Románia	7,0	2,9	7,0	2,1	5,5
(8) Szovjetunió	4,4	3,5 ^a	3,4 ^a	3,2 ^a	3,0 ^a

a - Domestic spending.

Sources: Here and hereinafter, the statistical yearbooks, plans and plan-fulfillment reports of the individual countries.

Key:

- | | | |
|-------------------------------|-----------------|-----------|
| 1. Country | 5. Poland | 9. (Plan) |
| 2. 1976-1980 average (report) | 6. Hungary | |
| 3. (Report) | 7. GDR | |
| 4. Czechoslovakia | 8. Soviet Union | |

The reports on plan fulfillment generally speak of the growing role of the qualitative factors and effectiveness. Successful efforts were made to modernize the production structure, to improve quality, to reduce the energy and material intensity, to concentrate investment resources, and to reduce the volume of investment in progress. Improvement of equilibrium, particularly of external economic equilibrium, played a key role in the strategy of economic development. In several countries, however, economic management could not feel satisfied with the achieved results, with the elimination of the previous shortages and with

the rate of progress. In some places there were bottlenecks in supplying the population with commodities, in supplying production with raw materials and energy, in production relations and in transportation. Furthermore, the development of agriculture, the improvement of the effectiveness of investment activity, and the mechanism for protecting the domestic economy from the effects of recession in the capitalist countries were unsatisfactory.

For this year the European CEMA countries are expecting economic growth that remains differentiated. Most of the countries are planning the same rates of economic growth as last year, and only Romania is expecting a significant acceleration of development. In Poland, consolidation of the economic situation remains the primary goal. In accordance with the general direction of their economic policies, the European CEMA countries are striving for improving and restoring economic equilibrium, and for the development of qualitative characteristics that will enhance the maintenance of economic equilibrium. This year's experience to date indicates that fulfillment of the plan's principal objectives is a difficult task that will require continued great effort, because the external economic conditions remain unfavorable. The fact that certain capitalist countries have not renounced the instruments of economic pressure, and also the revival of the arms race are causing concern; recession in the capitalist countries is continuing, and the possibilities of exporting to them remain poor; what in practice amounts to a credit embargo is making it more difficult for some of the socialist countries to remain solvent and is hampering the development of East-West economic relations.

Production

The development of industrial production remains the decisive factor of economic growth. In most European CEMA countries, industrial production in 1981 rose at similar rates, by 2 to 3.5 percent. In Bulgarian and the GDR the expansion of industrial production was relatively dynamic and in accordance with the plan. In Poland, after the stagnation in 1980, industrial production dropped by 13 percent. (See Table 2.)

The success of industrial activity has depended in recent years, besides quantitative growth, increasingly on the improvement of quality and effectiveness, and on a reduction of inputs, particularly of the costs of energy and raw materials. Total employment in industry barely increased in most European CEMA countries (in Hungary it declined), and thus productivity and the factors influencing it are playing an ever greater role in the development of industrial production. The generally rapid increase of the stock of machinery per worker enhanced this process. The stock of fixed capital increased at a faster rate than the expansion of production, and therefore the efficiency of capital declined. Product quality generally improved; in some of the countries the proportion of goods bearing marks attesting to their high quality increased; and the circle of products that could be sold profitably on foreign markets became broader. However, several of the countries are dissatisfied with the rate of progress. Increasingly aware that the ensuring of the necessary sources of energy and raw materials was one of the prerequisites for industrial development, they devoted special attention to the expansion of their domestic energy-producing capacity and to investment projects whose purpose was to conserve energy. Several of the countries achieved the increase in their industrial output at unchanged or

Table 2. Development of Industrial Production (Year-on-Year Percentual Change)

(1) Ország	1976-1980 (2) Átlaga (tény)	1980 (3) (tény)	1981 (4) (terv)	1981 (tény)	1982 (terv)
Bulgária	6,2	4,2	5,6	5,0	4,5
(5) Csehszlovákia	4,8	3,5	2,7	2,0	0,6
(6) Lengyelország	4,4	0	..	-13,0	..
(7) Magyarország	3,4	-2,1	3,0-3,5	2,3	2,0-2,5
(8) NDK	5,1	4,7	5,0	5,0	4,6
Románia	9,5	6,1	7,0	2,6 ^a	4,7 ^a
(9) Szovjetunió	4,5	3,6	4,1	3,4	4,7

a - Commodity production.

Key:

- | | |
|-------------------------------|-----------------|
| 1. Country | 6. Poland |
| 2. 1976-1980 average (report) | 7. Hungary |
| 3. (Report) | 8. GDR |
| 4. (Plan) | 9. Soviet Union |
| 5. Czechoslovakia | |

declining energy consumption. At the rising prices of energy and raw materials, the industrial enterprises have become more cost-sensitive, and wage incentives to economize on energy and raw materials also played an important role.

In most European CEMA countries the rate of increase in the output of engineering was higher than the average for industry: 8 percent in Bulgaria, 6 percent in Czechoslovakia and the Soviet Union, and 5 percent in Hungary. Engineering continues to be regarded as the symbol of production modernization, and as the basis of technological progress and of the rationalization programs. Even with- in engineering, growth was rapid in electronics, automatic control systems, robots, telecommunications equipment, instruments, and certain types of power industry equipment. <

Development of the chemical industry was differentiated: in Bulgaria and the Soviet Union, the dynamic expansion of production continued; in the other European CEMA countries production slowed down, partially as a result of difficulties in the supply of raw materials, and partially as the chemical industry's response to the recession in the capitalist countries. Pharmaceuticals, household chemicals and cosmetics--in other words, the so-called light chemical industry--became the vehicles of the chemical industry's development in several of the European CEMA countries.

Production in metallurgy generally increased at a moderate rate. Modernization of plant and equipment, and of the product structure, continued--among other things, to overcome the marketing difficulties that were experienced worldwide.

Despite the growing role of energy-related investments, the output of fuels and electric power increased only slightly, except in Bulgaria. In Romania especially the substitution of coal for the decline in the output and import of petroleum

is creating a problem. In Czechoslovakia and the German Democratic Republic the energy sector's development is based on coal and on the programs for the construction of nuclear power plants. However, the possibilities for increasing the coal output are limited. In the Soviet Union the fuel industry increased its output by 2 percent, despite the difficult conditions of extraction. Particularly the production of natural gas increased, reaching 465 billion cubic meters. The coal output was 704 million tons; the petroleum output, 609 million tons.

Within light industry, the output of textiles, textile clothing, and of the leather and fur industry continued at their relatively slow growth rates. Food processing depended on the results in farm production: in several countries the unfavorable development of crop production did not permit faster growth of food production.

This year the European CEMA countries--with the exception of the Soviet Union and Romania--are expecting their industrial production to grow more slowly or at the same rate as last year. Four countries (Bulgaria, the German Democratic Republic, Romania and the Soviet Union) are expecting industrial performance to increase by 4.5 to 4.7 percent. More modest progress is expected in Hungary (2 to 2.5 percent) and Czechoslovakia (0.6 percent). At the beginning of this year industrial production rose rapidly (by 4 to 6 percent) in the GDR and Bulgaria, more moderately in Hungary and the Soviet Union (by about 2 percent), but declined significantly in Poland.

In the European CEMA countries agriculture plays an especially important role in the population's food supply and in the development of economic equilibrium. In the second half of the 1970's farm production increased by 1 to 2 percent in most of the European CEMA countries, but declined in Poland. Capricious weather fluctuations in 1981 continued to influence significantly the development of farm production. The planned crop yields were achieved only in the GDR. The more significant increase in production (by 3.5 to 4 percent) in Bulgaria and Poland compensated only partially for the declines in the preceding years. The causes of agriculture's inadequate development, much criticized in several countries, are complex. Natural disasters (droughts and floods) in successive years caused large dropouts in crop production. Without belittling the role of these natural disasters and the achieved results, it can be established that agriculture's further development requires perfection of the system of economic instruments and of the system of regulation. The point is not only that the development of agriculture is very capital-intensive and agriculture requires more support, but also that the use of investment resources must be better coordinated to resolve the bottlenecks that are hampering development, and more incentives must be provided for full-time and part-time farmers alike.

Grain production in the European CEMA countries as a whole was lower than the previous year, with increases only in Bulgaria and Poland. The production dropout and the curtailment of grain import influenced the development and composition of livestock production, selection and modification of the methods of feeding. The food-supply problems in Poland were caused, in addition to grain production, also by the disruption of market relations. The potato crop developed favorably in every European CEMA country; oil seeds, in Bulgaria and Hungary; and sugar beets, in Poland, the German Democratic Republic and Hungary. The Soviet Union again harvested a bumper cotton crop. (See Table 3.)

Table 3. Development of Farm Production (Year-on-Year Percentual Change)

(1) Ország	1976-1990 (2) Átlaga (évi)	1980 (3) évi	1981 (évi)	1981 (évi)	1982 (4) évi
Bulgaria	1,0	-4,5	4,7	3,6	2,2
(5) Csehszlovákia	2,0	8,1	2,8	-3,4	3,2
(6) Lengyelország	1,4	9,7	...	4,1	...
(7) Magyarország	2,5	4,3	3,0	0	4,0-4,5
(8) NDK	1,6	0,2	0,8 ^{a, b}	1,8	0,2 ^a
Románia	4,0	-4,3	9,0 ^b	-0,9	8,0-7,9
(9) Szovjetunió	1,5	-2,5	7,5	-2,0	...

a - Agriculture and food industry.

b - Net production.

[Key as in Table 2.]

The level of the supply of materials and machinery for crop production showed further improvement. Emphasis was on modernizing the stock of farm machinery, the widespread complete mechanization of the production of certain crops, improvement of the supply of spare parts and of the quality of the work performed with machinery, improvement of the quality and composition of manufactured fertilizers to better meet the existing soil conditions, and greater care in the transportation, storage and placement of manufactured fertilizers. More attention is being devoted to harvesting, storage and the reduction of losses.

The results in livestock production are generally more favorable than in crop production. In most of the countries the livestock population is at the same level as a year earlier, despite problems in feed and fodder supply and livestock culling in some areas. In several countries the problems stemming from the smaller grain harvest and the curtailment of grain imports are being resolved by limiting the keep of feed-intensive species (poultry, hogs).

More modern conditions of keep and the greater effectiveness of feed utilization increased the yields in livestock production, but it is still below the level in the most developed countries. There still are considerable reserves in this respect; at higher yields, the present livestock population would be sufficient for a high level of the population's supply with livestock products.

The more reliable and faster development of agriculture than up to now, based on intensive factors, has shifted to the forefront of attention in the European CEMA countries at the beginning of the 1980's. To this end investment in agriculture is being increased, its management is being modernized, and the development of processing, transportation, storage and supporting industries is being coordinated with the development of agriculture.

More and more European CEMA countries are treating household plots and subsidiary farms in accordance with their importance: the state organs and agricultural cooperatives are aiding the small farms with machinery, manufactured fertilizer, seed and veterinary services.

For this year the European CEMA countries are anticipating a relatively fast growth of farm production. Romania, for example, is planning a growth rate of at least 6 percent.

Investment

In the European CEMA countries, with the exception of Bulgaria, the growth of investment has slowed down at the beginning of the 1980's, due to the changes in the external and domestic conditions of economic development and in conjunction with the efforts to improve economic equilibrium. In comparison with the preceding years, in 1981 the number of countries increased where investment activity declined or did not achieve the planned level. (See Table 4.)

Table 4. Development of Investment Activity (Year-on-Year Percentual Change)

(1) Ország	1976-1980 (2) Átlag (%)	1980 (3) (Mny)	1981 (4) (Mny)	1981 (5) (Mny)	1982 (6) (Mny)
Bulgária	4,5	14,4	3,7	7,6	..
(5) Csehszlovákia	4,1	1,6	..	-1,9	-3,3
(6) Lengyelország	-2,0	-10,5	..	-27,0	..
(7) Magyarország	2,7	-6,7	-5,8	-6,6	-6,0-7,0
(8) NDK	5,7	2,0	2,5	1,3	..
Románia	9,8	3,2	4,4	-6,7	5,0
(9) Szovjetunió	3,9	2,3	5,3	3,1	0,9

[Key as in Table 2.]

Amidst the slower growth and curtailment of investment, the requirements of the intensive phase of development are asserting themselves increasingly: in most of the countries preference is being given to investments for reconstruction, production rationalization, and the modernization of the technological processes. The proportion of investment in construction work is continuing to decline, while the proportion of investment in machinery is rising. The reports on plan fulfillment speak of improvements in the system of planning, approving, managing, preparing and carrying out investment projects, of a reduction of the volume of investment in progress, and of faster completion. Parallel with the results, there are also considerable shortcomings in preparing and carrying out the investment projects, and in supplying suitable equipment and materials on schedule. All this causes additional costs and schedule slippages, and the commissioned production capacities fail to attain the planned performances and profitability, or attain them only with considerable delay. In Poland, work on several unfinished investments has been halted.

Among the investment projects, emphasis is shifting increasingly to the ones that enhance the utilization of domestic energy and raw-material resources, reduce the specific consumption of energy and materials, increase the utilization of secondary raw materials, as well as to the ones that expand export allocations and improve international competitiveness.

The growth of investment will remain moderate also this year, and in Czechoslovakia and Hungary the volume of investment will be even lower than last year's

level (a drop, respectively, of 3 and 6-7 percent). At the beginning of the year, investment activity slowed down in every European CEMA country, with the exception of the Soviet Union.

Personal Incomes and Consumption

To improve their external economic equilibrium at the slower rates of economic growth, within domestic spending most European CEMA countries reduced primarily the growth or level of accumulation. Personal incomes and consumption are continuing to rise, despite the fact that the worsening economic conditions make such a rise more difficult. Improvement of the population's living standard and living conditions, consolidation of the achievements and preservation of the attained level remain important, one of the main objectives of economic policy. Realization of this objective necessitates a modification of the ratio of consumption to accumulation, in favor of the former. At the attained level of consumption and under moderate economic growth, on the other hand, emphasis shifts to the qualitative elements, to broadening the assortment of products of better quality, to narrowing the circle of shortage items and to improving the infrastructure, and at the same time it is necessary to cope with the problems stemming from the inadequate expansion of food production and from the inadequate importation of consumer goods.

The methods of maintaining a balance between the outflow of purchasing power and the available goods and services vary by countries. Therefore also the trends of personal nominal incomes and consumer prices, and in conjunction with them also the trends of the development of the supply of goods and services, differ considerably.

It is noteworthy that in 1981 per capita real income in the European CEMA countries, with the exception of Poland and Romania, increased by 2 to 4 percent, which was essentially in accordance with the plan. In harmony with the rates of economic growth, the rise in personal real incomes was the highest in the GDR and the Soviet Union. In Poland, however, the development of personal incomes was divorced from the available consumer goods and services; thus the 3-percent rise of real income does not express the development of the population's living standard, which declined noticeably in 1981. The incentive role of wages in conserving energy and raw materials, cutting costs, improving quality and accelerating the practical application of technical progress is continuing to intensify. As before, social grants and benefits continued to rise at a relatively faster rate than personal income as a whole. (See Table 5.)

In most of the European CEMA countries, with the exception of Poland, the retail turnover increased by 2.5 to 4 percent. In a few countries there were significant differences between the development of the retail turnover and that of personal incomes: in Bulgaria, Hungary, Romania and the Soviet Union the growth rate of the retail turnover was faster than that of real income, while in Czechoslovakia, Poland and the German Democratic Republic it was slower. In Poland, at a 3-percent rise of the level of real income, the volume of the retail turnover dropped 6 percent. Since it was difficult to spend personal income, this indicates the increasing role of the underground or illegal channels of trade.

Table 5. Development of Real Income and of the Retail Turnover (Year-on-Year Percentual Change)

(1) Ország	Az egy lakosra jutó (2) reáljövedelem				A kiskereskedelmi (3) forgalom volumene			
	1976-80 átlaga (4) (tény)	1981 (terv) (5)	1981 (tény) (6)	1982 (terv)	1976- 1980 átlaga (tény)	1981 (terv)	1981 (tény)	1982 (terv)
(7) Bulgária	2,6	3,1	2,8	3,0	4,5	4,8	4,5	3,8
(8) Csehszlovákia	1,0	..	kb. 2,0	..	2,7	2,3	1,2	2,8
(9) Lengyelország	2,9	..	3,0	..	3,3	..	-6,0	..
(10) Magyarország	1,8	1,0	2,2	0,5	2,7	1,2	3,2	1,0
(11) NDK	4,3	..	4,0	kb. 4,0	4,1	4,0	2,5	4,0
Románia	5,0	4,4	2,2	2,7	7,9	6,0	4,3	4,6
Szovjetunió	3,4	2,9	3,3	2,1	4,5	4,9	4,4	3,1

Key:

- | | |
|-------------------------------|-------------------|
| 1. Country | 7. Czechoslovakia |
| 2. Per capita real income | 8. Poland |
| 3. Volume of retail turnover | 9. Hungary |
| 4. 1976-1980 average (report) | 10. GDR |
| 5. (Plan) | 11. Soviet Union |
| 6. (Report) | |

Development of the population's infrastructure, and thereby the improvement of living conditions, continued also in 1981. Housing construction and related investments were the centerpiece of the infrastructure's development. Health care, education and cultural services improved, again with the exception of Poland.

Personal incomes and consumption in most of the European CEMA countries showed a moderate increase this year, in accordance with the economic possibilities and with due consideration for the requirements of restoring external economic equilibrium.

International Economic Relations

The conditions for an expansion of the European CEMA countries' turnover of foreign trade have become more difficult in recent years. Recession in the capitalist world economy, declining demand for imports and intensification of protectionist tendencies restricted the European CEMA countries' export to capitalist countries. Under these conditions the improvement of external economic equilibrium and the balance-of-payments problems compelled most of the countries to adopt a cautious import policy. In mutual trade among the CEMA countries the former turnover-increasing role of energy and raw-material shipments ceased and, under the more restricted investment activity, also the once dynamic growth of machinery and equipment deliveries slowed down.

In the European CEMA countries, with the exception of Hungary, the trade turnover in value terms increased dynamically in 1980, by 17 percent in the Soviet Union and by 12 to 13 percent for the other countries jointly. Export and import prices rose rapidly, and thus the trade turnover's volume increased only by 4 percent. In 1981, the previously rapid expansion of the trade turnover slowed down. There was a significant rise (11 to 15 percent) in the exports of Bulgaria,

the German Democratic Republic, Romania and the Soviet Union. The exports of Czechoslovakia and Hungary rose at a slower rate and remained essentially at the 1980 level in terms of physical volume. Poland's export dropped by 15 per cent. Export prices continued to rise. All this meant that the volume of export rose at a slower rate than its value. With due consideration for the requirements of improving external economic equilibrium and the financial possibilities, imports rose significantly in Bulgaria and the Soviet Union. In the other countries import showed a moderate rise in value terms, but its physical volume declined or remained unchanged. (See Table 6.)

Table 6. Development of the Foreign-Trade Turnover in Value Terms (Year-on-Year Percentual Change)

(1) Ország	1979		1980		1981	
	export	import	export	import	export	import
Bulgária	15,3	8,3	16,1	12,5	11	20
(2) Csehszlovákia	10,4	11,3	14,2	7,5	9	6
(3) Lengyelország	12,3	6,6	3,4	6,1	-15	-12
(4) Magyarország	17,2	2,6	-0,4	-2,9	7	5
(5) NDK	13,5	11,5	9,0	12,0	15	6
Románia	18,0	20,1	26,0	21,0	11	a
(6) Szovjetunió	18,9	9,6	17,2	17,4	15	18

a-Import declined significantly. The trade turnover as a whole rose 1.2 percent.

Key:

- | | |
|-------------------|-----------------|
| 1. Country | 4. Hungary |
| 2. Czechoslovakia | 5. GDR |
| 3. Poland | 6. Soviet Union |

In 1981 and this year, the capitalist countries introduced credit restrictions, which further hampers the expansion of East-West economic relations and prompts more forceful and faster restoration of external economic equilibrium. In most countries the balance of foreign trade shows a surplus, or is close to one. The problems of financing, amidst the credit restrictions, are caused by the high interest rates on earlier loans and by the repayment of the installments due.

This year the European CEMA countries must fulfill the principal economic-policy objectives contained in their annual national economic plans amidst international political, economic and financial conditions less favorable than in the past. Fulfillment of these objectives and warding off the unfavorable external effects can be based on evolving the qualitative characteristics of economic development, more forceful technological development, faster modernization of the production structure, and reduction of production's energy and material intensity. All this demands and presupposes improvement of international competitiveness, even closer mutual economic cooperation, intensification of the processes of integration, and continuous perfection of the entire system of economic management and of the planned economy's arsenal of economic instruments, in accordance with the stricter requirements.

COMMENT ON RECENT GOVERNMENT REGULATION ON PRICE FORMATION

Sofia RABOTNICHESKO DELO in Bulgarian 25 Oct 82 p 4

[Article by Dimitur Stanoev and Vasil Pekhlivanov: "The Active Role of Prices"]

[Text] The regulation on the economic mechanism made price setting entirely consistent with the requirements of the new economic approach. The principles, methods, forms and other basic problems of price setting were approved. The Council of Ministers recently approved a regulation on prices which provides an overall solution to all problems related to the price system. The state organs adopted a system of prices and their functions and compensations. The Council of Ministers will approve prices of basic food and durable population commodities and of most important fuels, raw materials, materials and energy which substantially affect the basic national economic ratios. This provides good guarantees for maintaining a substantiated level and stability of prices of such basic commodities which determine the living standard of the people and material production costs.

The Ministry of Finance was entrusted with implementing the state policy in the field of prices and price setting. The Main Administration of Prices will approve the prices of commodities and services and the norms and conditions for price setting. It will provide methodical guidance in price setting. Extensive rights have been granted and the responsibility increased of ministries, departments and executive committees of okrug people's councils in the area of prices and price setting. They will organize the study of the influence of prices on sales, formulate proposals on encouraging their progress through prices, and so on. The executive committees of obshtina and rayon people's councils will be increased in controlling and setting prices of some commodities, services and types of work of local significance and in settling disagreements related to prices on their territory.

Price contracting for individual commodities and services among economic organizations will be based on conditions and norms stipulated by the state price authorities. Agreed upon prices will be mandatorily recorded by these authorities and will become effective following their registration. This will establish state control over contractual prices. Price suggestions submitted to state price authorities must be mandatorily coordinated in advance with the consuming economic organizations. The producing economic organizations must

prove through their price offers the efficiency of the goods they produce and substantiate their technical and economic indicators on the basis of which the consumers accept the prices.

The price regulation and its documents essentially create a system of supervision on the part of state price authorities on price-setting processes. Control on the part of such organs over price setting and economic activities is strengthened. The regulation provides for an overall organization of price control and price setting. It entirely settles problems related to guaranteeing the rights of consumers, including the population, in order to prevent any type of speculative increase in prices of commodities and services and illegal income earned through higher prices. Current studies will be made of the results of the application of prices and measures will be earmarked to improve them. The Bulgarian trade unions and the Fatherland Front organizations have been granted extensive control rights in terms of the observance of approved prices.

This procedure of defining, approving, contracting for and controlling prices provides for a greater substantiation of the levels and ratios of prices in the country. Conditions have been created for the prompt noting and elimination of weaknesses in price setting. The price regulation is an important document in the management of the socialist economy under the new economic approach. The mastery of its stipulations and their proper practical application now becomes the task of all leading and executing cadres.

5003

CSO: 2200/20

JUDICIAL ENFORCEMENT OF ECONOMIC RESPONSIBILITY DISCUSSED

Budapest MAGYAR HIRLAP in Hungarian 2 Oct 82 p 3

[Interview with Deputy Minister of Justice Dr Ferenc Petrik by Gyorgy Acs:
"Who Is Responsible?" date and place not specified]

[Text] In recent years the question posed in the title has been asked not only by lay people but by more and more professionals who are examining whether our system of responsibilities is suitable for today's needs. Our reporter Gyorgy Acs asked Deputy Minister Dr Ferenc Petrik about this.

[Biography] Deputy Minister of Justice Dr Ferenc Petrik was born in 1933 and graduated in 1956 from ELTE's [Lorand Eotvos--University of Sciences] Department of State and Legal Sciences. He has been a lawyer candidate, a county clerk, and a judge. He has headed the Civil Law and Economic Codification Department in the Ministry of Justice. He was appointed deputy minister in 1978.

[Question] We often hear about modernizing the system of responsibilities. Why has this topic appeared on the agenda?

[Answer] We have often seen in recent years that people were not held responsible for negligence that caused demonstrably significant losses to the national economy or that the punishment was not in proportion with the damage to the national economy. These complaints refer especially to investments, but we have also seen similar problems in other areas of economic operation. It rightly bothers society's sense of justice to see that justice always catches up with the guilty parties in minor matters, but if someone causes a million forints of damage by his/her negligence--well, the apportionment of responsibility is not quite as consistent there. Increasingly difficult economic conditions also justify that holding one responsible should be consistent both for erroneous decisions and for failure to make decisions. In developing economic policy and the legal system, emphasis is now given primarily to developing a modern economic regulatory system and the organizational system of the enterprises and to developing the "economic environment" which helps develop the independence of enterprises in several directions.

Even though our economic policy emphasizes the inseparability of independence and responsibility in business, a deeper and more comprehensive interpretation of the problem of economic responsibility falls short of the requirements. This shortcoming must now be made up.

[Question] Under today's circumstances is it possible to determine at all who is responsible for a poor economic decision?

[Answer] Legal responsibility for an economic decision and sanctions can be implemented if failure to carry out one's obligations is involved. If we examine the question of establishing responsibility in this sense, I can say this much briefly: if the responsibilities of managers and subordinates are defined accurately and clearly, then the legal responsibilities of these persons can also be determined.

[Question] Doesn't combining the directing, supervisory, and decision-making departments of the ministries often hinder clarification of responsibility?

[Answer] Studies and analyses made so far prove that if too many "guiding effects" reach the economic operating organization and if these are not sufficiently coordinated or if they are contradictory, the economic operating organization or its manager "becomes confused". He then ranks for himself the economic directives and satisfies one directive at the expense of the other. This is why I consider it important to eliminate these overlapping areas.

[Question] It is also possible to implement the will of the directing entity through various informal channels and at such times it is virtually impossible to hold someone responsible. How can this be prevented?

[Answer] It does make it more difficult to establish responsibility for decisions if the economic directing activity and the decision-making authority of the enterprise are intertwined. The economic directing organs are also participating in shaping the decisions of the economic operating organizations—especially if organizations that are significant from the national economic viewpoint are involved. If this participation is done in an "informal" manner, that is, if they are not regulated legally, this hinders the clarification of the responsibility. Of course, it must also be taken into consideration that an "informal system of contacts" functions to some extent in all economies, and completely eliminating it is unrealistic. It is impossible to prevent the operation of such a system by statutes. But it would be a step forward if we separated the decision-making authorities more precisely and more clearly than is being done now, while conforming to the realities. In addition, we should implement the requirement that as long as the directing organs are participating in the enterprise's decisions, they must also accept some of the responsibility for these decisions.

[Question] If the decision-making areas of authority are practiced by bodies such as government committees, councils and managing councils, can we speak about collective or individual responsibility?

[Answer] We must not forget that collective decisions are preceded by wide-scale preparatory work. Thus the decision itself is only one "link in the chain," though a fundamental one in the decision-making process. Individual or personal responsibility is dominant in the proposals presented to these bodies. However, management by groups cannot dissolve and cannot wash away individual responsibility. Unfortunately, experience shows that the responsibility of the person presenting a proposal is not always examined and established for the contents of the proposal and for its "professional credibility." Further improvement of the practice, of affixing responsibility as well as adequate regulation are needed in this area. The job of regulation is to determine the extent of responsibility of the person presenting the proposal and how it can be separated from the responsibility of the group. An additional problem is the responsibility of the group itself, which makes the decision "relying" on the proposal or the presentation. The questions related to this problem are essentially undeveloped in the Hungarian legal system. Under the guidance of the Ministry of Justice, the theoretical and foundation-laying work that will make it possible to determine the responsibility of the group has begun. This work is even more important because it is a world-wide phenomenon that group decisions are increasing in popularity, not only in the lives of nations but also in the area of economic operation. But I would like to make this personal observation: I do not believe that it will be possible to develop as accurate a mechanism for determining group responsibility as it will be for the individual decisions. Overly complicated and overregulated group responsibility would make it difficult for the group to function and could lead to "responsibility-avoiding" behavior on the part of the group's members.

[Question] Even though it seems that the legal tools are satisfactory, why don't the penalties and economic fines have the appropriate effect?

[Answer] I agree that the legal tools are generally satisfactory. The Council of Ministers has recently increased the schedule of fines, and the modernization of the system of economic fines 3 years ago has made this institution basically suitable to fulfill its economic policy purpose. A basic problem in connection with the fines is that the organs entitled to receive the fines are not implementing their claims. The reason for this is that in a number of areas a buyer's market prevails. The buyers--afraid that future cooperation and the partnership will suffer--are not implementing the claims they are entitled to for broken contracts. A number of economic operating organizations also are not fulfilling their statutory obligations to keep a record of the fines they are entitled to for broken contracts and to identify accurately the person who made the decision not to demand the fine for a violated contract. This statute must be consistently implemented. However, a fundamental change in the present situation may result if much stricter economic operating conditions than before would in a way "force" the buyers to implement their rightful financial demands. Signs of this change can already be seen in certain areas. The main problem with economic fines is that the organs authorized to initiate fines--especially the branch ministries--are using their initiating authority to a much smaller extent than justified.

[Question] What are the plans of the Ministry of Justice?

[Answer] The Ministry of Justice is examining and further developing the responsibility system on the basis of a work program. The studies and analyses began about a year and a half ago. During the course of the work it has become increasingly obvious that a preliminary condition for implementing the sanctions is to identify the behaviors that provide the foundation for holding someone responsible. Therefore we judge it necessary--in agreement with the interested functional and branch organs--to develop further some elements of the control system that serves to implement legal responsibility. This is a complex task. In connection with supervisory control, which expresses the state's role as owner, it is justified to regulate the legal status of the supervisory committees in a more modern manner. The interested organs are also working on modernizing the system of quality control standardizing the sanctions they can apply. Measures have also been created in the interest of improving the standards and efficiency of control by prosecuting attorneys and of popular control. And the most important thing is to simplify and shorten the path that leads from the discovery a violation of responsibility to the establishment of responsibility and the application of a sanctions. Today there are still too many unnecessary steps. We are also investigating what solutions could be achieved if the discovery of illegal behavior always led to legal sanctions. It has occurred in this area, for example, that in certain cases--upon recommendation by the supervisory organs--it should be mandatory to commence the procedure for holding a person responsible. By the way, this is not an entirely new idea, since this system has been working for a long time, and working well, in the case of popular control. And, finally, we are also working on further developing the system of sanctions. Among the measures being planned I would mention--only as examples--the following one: experience shows that in certain cases the statute of limitations concerning disciplinary procedures for responsibility are hindering sanctions against serious violations of responsibility. We are therefore examining the possibility of raising the time limit on the statute of limitations. We are also working on a review of the misdemeanor status, on the fact that the amount of on-the-spot fines are today too low, and on the fact that the statute of limitations for misdemeanor proceedings is not in harmony with the frequency of control audits.

8584

CSO: 2500/15

FAUVEGI ON ECONOMIC POLICY, PLANNING

Budapest FIGYELO in Hungarian 30 Sep 82 pp 1, 4

[Article: "Planning: In the Soil of Realities"]

[Text] The conference on economic planning (see Figyelo No 38, 1982 for an article prepared from an address by Gyorgy Lazar, premier of the Council of Ministers) conducted its work in four sections. The subjects of these sections (the problems of development planning under conditions of the 1980's; the planning of economic processes, living standards and living conditions; the system of economic regulation and economic planning; planning of the methodology of plan calculations) indicated those main lines which the planners, the researchers and the practical experts regard as the most important for the development of economic planning.

Lajos Faluvegi, chairman of the National Planning Office, gave the closing speech of the conference. (The lectures that were delivered will be published in the near future and forwarded to the participants, research work places and institutions of higher education.)

We must further develop the economic guidance system which is operating today in order that it should meet the requirements of the intensive development phase since today an elemental interest of economic organizations is innovation. There are many inhibiting factors to the social diffusion of entrepreneurs and to the mediations of market influences. This was the conclusion of one of the lectures at the conference which evoked great interest and which reviewed the operations presently being conducted in regard to the development of the economic guidance system. The goal is to prepare a comprehensive modernization program for the period of the Seventh Five-Year Plan.

The 1968 economic reform, which represented an enormous advance in social and economic life, left the right of exercising property basically unchanged. It is the sub-branch ministries which exercise property rights over state enterprises. We need a socialist property system which is variegated and embraces many variants. In the case of large state enterprises in the competitive sphere, the property right could be exercised by some kind of holding, consortium or board of directors. Medium-sized enterprises may make use of their own property license, although thought must be given to their

appropriate legal control. In the case of small enterprises--independently of whether these are state or cooperative property--one can conceive of a self-administrative form similar to the cooperative system.

Enterprise laws which may be modified some day must also make provisions for mixed property types (joint enterprise, association, and so forth).

In the future, too, the task of central guidance will be economic planning, the making of macro-level decisions, and the laying out of the growth track. It must define the system of rules for their realization (tax, price and capital-circulation, manpower management, and so forth.)

In capital allocation the withdrawal of capital from inefficient areas should be automatically assured.

Such a transformation of personal income regulation and the system of manpower management may improve the operational capability of the economy, which will create greater decision-making and management freedom at the enterprise level. To this end, it is necessary to have unified earnings taxation, manpower mediation extended as a state service, and the establishment of a financial system which stimulates efficient employment. It is the task of the state and of the enterprises to assure full employment. We shall not give up that basic social principle of socialism that unemployment must be avoided along with the accompanying personnel uncertainty. But we cannot allow the economic organizations to be compelled to employ superfluous manpower.

Economic Pitfalls

In regard to economic policy practice, one of the speakers drew attention to the risk of an economic policy that goes into a restrictive spiral. This warning is proper, even though the Hungarian economy is not in this condition. The foreign trade economic equilibrium which exists at present does not rest on secure foundations. We need to develop a price and financial regulation which will serve the attainment of a permanent equilibrium taking into account the external sources that may realistically be taken into account, and the accompanying charges.

The shaping of world economic conditions defines to a large extent the development of the Hungarian economy and the directions of its development. The speakers emphasized that in the 1980's we cannot count on a change favorable to Hungary to occur in world economic processes. For example, even according to optimistic forecasts the rate of world economic growth will be lower in the coming decade than it was in the third quarter of our century.

World economic changes will continue to be difficult to calculate, and in addition we must also reckon with political difficulties in the capitalist world which will have an effect on us. As a consequence, external uncertainty factors are growing in their importance to planning. All this is occurring in a situation so stringent in sources that it makes the economy

extremely sensitive to small errors and small changes deviating from the plan. It is therefore essential for planning to create an information base which will make it possible to recognize and analyze the changes in the main structures of the world economy. With this the uncertainty of planning may be somewhat reduced.

The warding off of unforeseeable but frequent cyclical fluctuations and political difficulties that cannot be planned for requires the formation of material reserves and the strengthening of the flexibility of planning. This is the condition for assuring, even under conditions that differ from what was expected, the planned regulation of economic processes.

Instead of Isolation

The speakers emphasized that in the case of foreign economic forecasts the plan must be based on realistic conditions and not on conditions regarded as the most favorable. In the past period the actual foreign economy conditions developed more unfavorably than assumed during planning preparations, and this frequently required operational measures deviating from the plan.

In the development of CEMA cooperation it must be taken into account that a number of member countries are struggling with equilibrium problems and place their solution at the center of economic policy planning. Acquisition opportunities are developing slowly for Hungary, and terms of trade are developing unfavorably. Despite these conditions we must do everything possible to remove the obstacles in the way of a more rapid development of economic integration.

Despite the increasingly difficult foreign economic conditions it is not possible for the Hungarian economy to reduce its participation in international work distribution and choose an isolationist policy. The Hungarian economy can keep up with the rapidly changing world economic processes only if it increases its efficiency and competitiveness at a more rapid than general rate of development.

Foreign economic conditions in the 1980's will make possible only a moderate rate of economic growth, and at the same time an improvement in the foreign economic equilibrium will require significant resources. But in the opinion of some people a further reduction in domestic consumption may divert economic policy on a compulsory track. It is possible to reduce consumption by the population only to a certain point whereas a further reduction in accumulation may restrain the transformation of the production structure. Therefore, we need to modernize planning and economic management in such a way that it will result in an increase in the export capability of production and an improvement in competitiveness, and thereby in the development of a new growth track which will meet equilibrium requirements. To this end, we must move ahead in the planning and influencing of production.

A Stronger Differentiation

In structural change, the role of the microeconomic structural change increases, and this requires the development of market-oriented enterprise

organizations. Structural change also requires the modification of the present investment structure. Therefore an increase in competitiveness will make it necessary to have a more differentiated production and development policy and a regrouping of internal resources.

Primarily, this differentiation means selection on the basis of efficiency and profitability. Parallel with this, we also need in the framework of long-term planning to select those production areas which will in perspective increase the efficiency of the whole economy. (For example, microelectronics.) The activities that should be developed may be shaped by the combined use of these two kinds of selection.

A number of speakers emphasized that given the narrow economic possibilities a rapid rate of development in competitive and long-term areas can be realized only if the production and development possibilities in the low-efficiency areas are reduced. A stronger differentiation and selection may result in certain cases in the sharpening of economic-social conflicts. It is therefore necessary that planning should be capable of signaling the expected conflicts and coming up with alternatives that will make a solution possible.

Under present circumstances, the role and relationship of various long-term plans will be modified. Some have emphasized the importance of outlining the strategic direction of development. The future course must and can be indicated in long-term planning and an answer must be sought for the future development of social and economic processes. In this sense, long-term planning may also be the control over the effects of our present economic actions and can orient us as to the kind of action that is desirable today in the service of long-term goals. To this end, emphasis must be placed on the investigation of the relationships among different areas and not on an analysis of the individual areas themselves.

As a consequence of the present, changing world economic processes, the possibility of five-year horizontal planning is reduced and emphasis is placed on shorter planning periods of 2 to 3 years. At the same time, when the need increases for an outlook that extends over a number of years in short-term planning, the role of annual planning will also be increased. These plans form the basis of operational economic action.

The Function of Forecasts and Alternatives

The need for selective development of production, the uncertainty of foreign economic processes, and the varying effects exercised by the different decisions on the social processes justify an increase in the role of variants in the concept and plan-preparation phase.

They raised at the conference the point that under our present circumstances—particularly over the long term—we may also need to work out a number of planning alternatives.

The role of analyses and forecasts in planning has increased. The objectivity of analyses may be improved if a number of analyses are prepared in a parallel

manner for a given subject. They emphasized the importance for a more concrete analysis of international economic relations, the study of international political relations, the recognition of danger zones, and a more fundamental understanding of microeconomic processes.

The question was raised at the conference whether it is possible and advisable to plan nearly even growth. A number of speakers affirmed that in many areas of our economy in past decades there has been a phasing in and out, alternating peaks of growth and valleys. This was related to the phases of the great social transformation, in some cases with the phases of technical development, or with the sharpening of contradictions from time to time. They regarded it as conceivable or at least something to be investigated whether uneven growth in a given period results in more achievements than an even rate of growth.

Product Consumption and Infrastructure

A particular importance is given to the study of social processes and the planning of living standards and living conditions by the fact that while the rise in living standards after 1965 has been relatively even and at a high rate, and up to 1975 practically uninterrupted, in the Fifth Five-Year Plan--as compared to the average for the previous 10 years--the rate of growth in real income dropped to one-third and consumption to one-half.

In analyzing the situation, we must in one hand always reckon with the given economic circumstances, and in this connection with the economic policy at the center of which is the restoration of the external equilibrium. On the other hand, hoping that the maintenance of the living standards does not become a strategy over the long run--we must make the foreseeable problematic consequences a subject of study. This was undertaken by one of the speakers in the second section of the planning conference.

The first essential finding was that excessive limitation of the growth in earnings will hold down work place achievements because more and more workers will be forced to look for an income supplement (and from this point of view it can only have a positive effect that they can operate in the socially organized framework of small businesses.)

It is an open question how it might be possible to realize differentiated, material incentives given a stagnant real-wage level. It is hardly possible through the raising of nominal wages, and on the other hand effective incentives are possible only if we take from some in order to give more real earnings to others. This would actually correspond to the publicly announced position of the government that greater and better achievements are necessary in order to maintain the level of real earnings. But the stagnation of real earnings or incomes over the long run accompanied by possible shocks to the commodity supply raises questions about the incentive effect of earnings.

The declining trend in work incomes, within an income structure, is a different problem. This ratio declined from 68.5 percent to 66.4 percent because of the increase in the number of pensioners.

Moderation of the increase in social allowances paid in kind, however, has made more striking the differentiation which could not be ignored even before and which characterized, for example, the health, cultural and educational facilities of the village and city population, or the situation of pensioners, for example, as compared to the workers.

This is an increasingly serious problem although the Sixth Five-Year plan gives special attention to public health affairs; but the general development of the infrastructure has been forced into the background. Of course, this is again a condition that can be ascribed to the difficult economic situation, but independently of this it is becoming more and more urgent to make those studies which will analyze the system of relationships between lagging infrastructural developments and investments and long-term economic growth. All the more so because the role and effect of a developed infrastructure in the shaping of the equilibrium is a demonstrated fact.

The ratio of foods in the consumption structure--between 1979 and 1981--has declined not as a consequence of the relatively slower growth but as a consequence of an absolute decline. The same is true of luxury items. The ratio of clothing within the consumption structure shows a constantly declining trend. A different situation exists with durable consumer products: aside from a 0.6 percent decline in 1980, it has been increasing, but in 1981 it was a lower percentage than in 1978. A clear ratio increase is observable only in heating, household energy and services.

And at this point we must wind our way back to the infrastructure. It may at least be assumed that people will reconcile themselves more easily to a relatively slower growth, or stagnation, in product consumption, if they perceive a clearly perceptible improvement in the infrastructure. This is true not only for public health affairs, instruction and public education but also in the material sub-branches of the infrastructure: communications (telephones!), transportation, and so forth.

The new achievement in the methodology of economic plan calculation is that the "ready models" are always ready in case of a change in circumstances to figure out the necessary variants and to perform sensitivity studies. We can also observe the effect exercised on one another by the modifications in plans of various duration.

As Faluvegi emphasized in his concluding remarks, the conference contributed to improving economic planning, to the strengthening of its political-professional respect, and an important role was played in this by the critical comments that were offered as well as by the helpful suggestions. The mission of planning has always been to build a bridge between political ideals, economic conditions and social interests. Today it follows from this that planning must increasingly become a continuous activity which is not concluded with the casting into legal form of plans with differing perspectives.

Today our planning work must grasp and express the essence of economic policy, including the more major conditions of execution. On the basis of the

economic plan we must guide the activity of the economic units in such a way that by building primarily on their interests it should give incentive to the realization of our economic policy goals, and the plan should include limitations on us only to an unconditionally necessary extent.

Not a Picture of the Ideal

The plan must mobilize not only to economic but also to social action. This can be attained only if in the offices of planning work different occupational and social interests encounter one another and come in conflict. It is in this way that the plan and planning become the material driving force stirring to life the unity of society and an outstandingly important source of national identity consciousness.

We now perhaps have greater need for long-term planning than ever before. For in line with our characteristics we also must give a socialist answer to the vital questions of humanity. We must show our young people as well the path that leads into the future in order that they can trust in and identify in an active way with our socialist ideals. To this end, we must strive not for an ideal picture of long-term planning but for the sketch of a realistic and attractive picture of the future, working out the strategy of the new development track.

In this present changing world that has so many surprises we cannot dispute the necessity of annual planning. In the now greatly increased importance of annual plans, the main importance belongs to the external circumstances. With the practicality required by life we must adjust our actions to the changing conditions and possibilities. At the same time we must know how to resist the temptation for the managing organs to intervene in the work of enterprises and cooperatives. Therefore, planning must undertake to see that operational economic activity expresses its effect on a defined path and in a calculable manner.

In respect to the years remaining in the Sixth Five-Year Plan, the chairman of the planning office has drawn our attention to the fact that an accelerated growth rate can be well founded, permanent and successful if it is supported by a deep structural change and strict selection, and is accompanied by a general improvement in efficiency. For all these reasons it is necessary to work out in the next few years the ways in which the comprehensive modernization of the guidance system can be worked.

In speaking of the work and responsibility of the planners, Lajos Faluvegi emphasized that it is true every area of the world is struggling with economic and social problems and seeking for the possibilities of development. But by us the stakes are even higher. If ever, we must now demonstrate that the socialist society is capable of organizing and advancing the economy in national scope and with a consciousness based on foreseeing the directions of social development.

The art of planning consists of our being able to sense when a scientifically based system of thought meets the possibility offered by reality, that is,

when it can become, and must become, its social and action program. It is the personal and human responsibility and mission of the planners to seek a way out. Therefore, they must also undertake risks, at times the risk of mistakes and being misunderstood, but they must never give up the requirement of renovation.

6691

CSO: 2500/16

HOUSING PROBLEMS, PLANS OUTLINED

Warsaw TRYBUNA LUDU in Polish 22 Oct 82 p 4

[Article by Albin Siwak, member of the PZPR Central Committee Political Bureau: "How to Solve the Housing Problem in Poland? By Building More and Reacting More Flexibly": passages enclosed in slantlines printed in boldface]

[Text] /More than 2 million young people are waiting for housing [apartments]. The waiting period for cooperative housing has already stretched itself out to 15-20 years. The young have a chance to receive their own place, which constitutes the basic condition for family living, no sooner than at the end of the most productive period of their lives --at 35-40 years of age. The negative socioeconomic consequences which result from this do not require any comment. The attempts made until now to solve the problem have not been successful. Only radical changes in housing policy and in the method of implementing construction can create conditions which would assure an average working family the obtainment of their own housing in a matter of several years./

/Despite many pessimistic opinions, a solution to this difficult problem does exist. Such conclusions were also reached during the course of studies conducted by the building team which included scientists and sociopolitical activists./ Let some of the issues which I will cite from the comprehensive study (it will be published in full in issues No 7 and 8 of the builders sociotrade weekly KONSTRUKCJE) have a voice in the discussion which is underway in the country on the shape of housing construction.

To Look With Courage

/The scale of unfulfilled needs, the mistakes made in the past, the use of the country's economic potential as well as the initiative and commitment of young people indicate the need for radical changes in the existing housing policy./ Of primary importance in the immediate future should be the overcoming as rapidly as possible of the current crisis in housing and the creation of conditions in which the needs of the public will be properly fulfilled.

/With a goal thus formulated, the basic task of the state authorities will be to create new administrative-legal, economic and material-technical conditions within whose framework twice as many apartments will be constructed starting with 1986 as at the present time. Consequently, things should be handled in such a way so that by 1990 the waiting period for housing will not exceed several years./

The implementation of the above task requires the acceptance of two assumptions:

--First, the dimensions of building construction projected for the 1980's must take into account the existence of the present potential and the need for a radical change in the present technological and organizational forms of operation. It is necessary to totally cast aside the existing view that the scale of housing investments planned for the present 10-year period must be adapted to the capabilities and forms of current building construction.

--Second, general housing construction, primarily low-rise building development, should become a goal to which society would commit itself and consequently become an important factor in leading the country out of the economic and social crisis. A direct result of the acceptance of this assumption is the division of responsibility for housing construction between the state and that segment of society which needs new living quarters. The citizen must contribute to the building of his own housing not only in a financial sense but also in terms of organization and execution. The citizen will not shirk this responsibility if he is convinced that he will receive housing quickly and inexpensively. The way to this goal is, above all, through mass low-rise building construction; i.e., multifamily buildings--from one to at the most four stories as well as one-family homes in a dense building development.

How Many New Housing Units?

From assessments made by the Institute of Environmental Development, it follows that providing for all housing needs would require the construction of 4.5 million new living quarters up to 1990. Meanwhile, last year we built 183,000 housing units in the country and approximately 160,000 will be made ready for occupancy this year. If housing construction were to be continued at the present rate, then in the years 1980-1985, 1 million housing units at the very most will be ready for occupancy. This would indicate the further deepening of the housing crisis.

However, in order to provide for housing needs in their entirety, it would be necessary, beginning with the coming year, to make available to tenants an average of over 1 million housing units. Such a task cannot be implemented under conditions of the continuation of the present strategy in building construction. /In our opinion, however, it is possible to rapidly increase the amount of housing units being built to 500,000 by 1990./

On the basis of the existing technical potential, it is possible to achieve and maintain during the 1980's a production level of about 200,000 apartments

annually in multifamily buildings which are erected using industrialized methods. The building of single family homes intended for several generations [kilkupokoleniowych] and small, multifamily homes should be developed concurrently on a large scale. In 1985, it is possible and necessary to satisfy the housing needs of 150,000 to 200,000 families with so-called, low-rise-building construction and in 1990 to provide for the housing needs of no less than 300,000 families. The materials supply base for "low-rise" building construction will be composed of materials and raw materials that were conserved in house building factories as a result of the modernization of their production technology as well as materials produced from local raw and waste materials by the trade industry, by the cooperative movement and persons interested in building construction.

Only such a formulated program can lessen the housing shortage by the end of this decade and create realistic bases for a general solution to the housing problem during the final decade of this century.

Less Barriers

In order to implement the proposed plan of housing construction, it is necessary to completely remove psychological, legal, organizational and technical barriers which had accumulated in the 1970's on the citizen's road toward an individually-owned apartment./

In the organization of building construction based on a "large panel" ["wielka płyta"], the candidate for an apartment has been exclusively sentenced to waiting. On the other hand, the possibility of living in a small house with a yard is something that most citizens will support with their own initiative and their own work in building the house.

The valid principle of protecting farmlands has taken on a degenerated form in our legislation. This is exemplified by attempts to drive housing developments solely onto waste and infertile land including that which is within the administrative city limits. These practices cause unsubstantiated increases in the building and exploitation of housing due to the need to extend the technical infrastructure and transportation network. According to analyses, the losses incurred as a result of occupying open spaces in cities are 14-20 times lower than the additional costs which would be necessary to incur if housing developments were to be "pushed" far away from city centers.

It is often maintained that high-rise building construction by comparison with low-rise construction assures the conservation of open farmlands. Credible evaluations and practice indicate that dense settlement in a well-planned compact low-rise development of single- or several-family homes is in effect very close to high-rise building development.

From a geometric point of view, the complex of houses in a dense building development is nothing more than a tall building placed on its broader side. The difference is that it can have a more varied facade and can assure natural living conditions which are more conducive to human psychological

wellbeing. In addition, experience is teaching us that the amount of agricultural produce obtained from small gardening plots on fertile soil situation in the vicinity of houses is no smaller than that obtained from farming on a comparable area of land and same type of soil; while on less fertile soil, the amount of produce obtained from these small gardening plots is several times higher than that produced on farms and on comparable land.

Under conditions of legislation currently in force concerning the protection of farmlands, mass development of low-rise building construction is impossible. The existing regulations affecting land management should be changed so that the acquiring of land for building development would be based on cost effectiveness, the procedure involving land acquisition would be simplified and potential speculation involving building lots counteracted.

Responsibilities of the State and Citizens

/The authorities alone cannot be burdened with the responsibility of solving the housing problem. The weak point and one of the crucial reasons for the collapse of past housing programs was the fact that the weight of responsibility for assuring building materials and the production of housing was borne mainly by the authorities./ Overcoming the housing crisis requires real cooperation between the authorities and those who are interested in improving their housing situation.

For this reason, the following should belong, among others, to the responsibilities of the authorities:

--the balancing of needs on a national scale and the elaboration of a state plan for building construction which would be accepted by the public,

--assuring optimally high funds in the budget for subsidizing and crediting of various forms of building construction,

--stimulating the activity of all social groups with an appropriate system of guarantees and a price and crediting policy,

--regulating legislation in the area of managing agricultural and building construction terrain so that the availability of building lots [działki budowlane] would be guaranteed and

--guaranteeing the production of basic materials and equipment.

As I have already mentioned, this activity must be accompanied by citizen interest. Mass interest in participating in the work involving building already exists; this is evidenced by the movement of the so-called small cooperatives which unite thousands of people. In order to enable the implementation of their plans, it is necessary to create proper financial and materials supply conditions and guarantee the equal rights of low-rise building construction in relation to multifamily building construction. The citizen will build his own housing while the authorities should fulfill the role of a wise, propitious and helpful patron. Only such activity can create realistic foundations for a start in solving the housing problem in our country.

PROBLEMS, PROSPECTS OF AGRICULTURE DISCUSSED

Warsaw PROBLEMY in Polish No 7, Oct 82 pp 15-20

[Article by: Ryszard Manteuffel, Dr Habilitatus PAN ordinary member:
"Polish Agriculture Today and Tomorrow"]

[Text] The current situation in Polish agriculture is the result of political, economic and technological errors accumulated over the years. While reviewing the circuitous paths of Polish agrarian policies, Professor Manteuffel focuses on possibilities for emerging from the agricultural crisis. Such possibilities exist, and the process of error correction has already begun, but ultimate success depends on consistent implementation of many conditions.

At the present level of development in the national economy, farming no longer constitutes an autarkic entity but rather a sector of the economy as a whole, connected by strong ties with other sectors. It depends on the development of industrial divisions providing capital goods for agriculture and on the growth of other industrial divisions that produce consumer goods for individual consumption.

Thus a proper volume of industrial production is a precondition for realistic farm incomes and represents a major factor in motivating farmers to maximize their production.

Currently, these two conditions are found at highly unsatisfactory levels, contributing to the fact that agricultural potential and farming population manpower are not being fully utilized and the volume of agricultural production falls short of current capacities.

Origin of Current Situation in Agriculture

In the period between 1948 and the Polish October of 1956, a policy of rapid collectivization and accelerated elimination of the private section was conducted in Polish agriculture.

The authorities' official policy was changed after 1956. It was recognized that the private section could exist until farmers would voluntarily give up on individual farming. However, no conditions were created to make the

development of private farming possible. At the same time, in point of fact, inherent in the implications of the laws pertaining to agriculture was discrimination against the private sector.

After 1974, there began a new wave of accelerated transfers of land to socialized sectors. In order to implement this policy, SKR's [Cooperatives of Agricultural Circles Cooperatives] and ZGR's [Combined State Farms] were created and assigned land transferred from the private sector to the State Land Fund (PFZ). The ZGR land holdings reached their peak in 1978 amounting to 460,000 hectares of agriculturally useful land. This form of land use, however, proved to be highly ineffective. Ultimately, farming declined in this sector so much that 1980 net production per hectare of arable land was [minus] 939 zlotys and net production was [minus] 12,107 zlotys.

Concurrent with the accelerated socialization of the private sector in farming, modifications affecting the socialized sector were instituted in the financial system and in economic policy. These changes were expected to contribute to growth in this sector and accelerate its productivity. In organizing socialized enterprises, a warped economic principle according to which increases in the scale of production cause reduction of cost was applied. This theory is correct within certain reasonable limits. If these are exceeded, the principle "maximum in optimum" is reached, which contradicts logic. That has led to a mania for bigness in expanding the size of enterprises and plants and stocks of cattle in so-called industrial livestock farms.

It was erroneously assumed that the socialized sector, tasked with "implementing progress" should also perform an interventionist role in the farm raw-materials market and should be managed centrally by means of a command-distribution system. It was also supposed to have in some vague way, by the nature of things, higher unit costs of production than these in the private sector. On this account, a principle under which enterprises in this sector were granted subsidies for production was introduced, which in recent times resulted in actual prices obtained in the socialized sector having been by 50 percent to 75 percent higher than those obtained in the private sector. This policy, intended to cause increases in final output per hectare and in labor productivity, has actually caused deterioration in all production indicators of the socialized sector in comparison with those in the private sector.

In turn, a dramatic decline of effectiveness in the socialized sector was brought about by a decision to accelerate this sector's quantitative growth after 1974, primarily through the establishment of new agricultural production cooperatives (RSP) by landless population on PFZ land. Final agricultural net production per hectare of usable agricultural land in this sector in 1975 surpassed the comparable production in the private sector by nearly 3 percent. In 1980, however, that production in the socialized sector was merely 61 percent of production achieved in the private sector.

What was known as industrial technology in the production of hogs and to some extent in the production of cattle, though not adjusted to the Polish conditions, began to receive support. Based exclusively or almost exclusively,

on grain, this policy pertained to the socialized sectors and to specialized farms in the private sector. As a consequence, there was a dramatic reduction in the sales of industrially manufactured feed to other farmers, causing considerable declines in slaughter livestock production on nonspecialized private farms and in peasant-worker and household-plot farms. This also contributed to rapid increases in grain imports. A mistake with disastrous results was committed at that point because, rather than (as intended) exporting slaughter livestock raised on imported fodder (approximately 9 million tons in 1980), that livestock remained for domestic consumption pushing average per capita meat consumption to 74 kg annually.

Erroneously understood effectiveness in increasing production scale along with support to the development of industrialized sectors resulted in gradual shrinking of the private sector and in destruction and ongoing elimination of small-scale industry, crafts and services in the nonsocialized sector.

The same premises have led to the dismantling and elimination of a number of facilities contributing to increased or improved utilization of agricultural produce (small mills, bakeries, butcher shops) or permitting additional inputs of deficit-plagued energy from so-called unconventional sources (wind, water and others). Among other things, weirs and other structures across secondary watercourses were eliminated, which intensified bottom erosion in the rivers and excessive drying of adjacent areas. This also increased the danger of flooding during peak runoff. Currently, however, references are made to the need for restoring small reservoirs for land reclamation purposes.

A ludicrous campaign to eliminate dunghills from the farms was conducted instead of taking care of their proper maintenance. The 'San-Epid' is on record for its infamous role in this respect. As a consequence, the country was virtually flooded with liquid manure and manure-polluted water, which contributed to the destruction of domestic resources of organic fertilizer, leading, in effect, to a disastrous decline in soil over large areas of our country.

Changes in Efficiency of Individual Socioeconomic Sectors in Polish Agriculture

1) Wskaźniki	2) Lata	3) Gospodarka uspołeczniona	4) PGR-y Minist. Rolnictwa	5) Spółdzielnie produkcyjne	6) Zespół gospodarka kółek rolniczych	7) Gospodarka nieuspołecz- niona
8) Produkcja końcowa netto	1970	10 188	8 775	13 518	4 094	14 349
	1975	12 721	12 715	16 644	— 372	16 175
	1980	10 588	11 279	9 813	— 939	15 991
9) Produkcja czysta rolnicza netto	1970	4 749	3 395	7 395	1 364	11 695
	1975	5 641	4 841	3 851	— 9 688	11 695
	1980	1 176	1 208	2 544	— 12 107	11 403

[Key on following page]

- 1) Indicators
- 2) Years
- 3) Socialized sector
- 4) Ministry of Agriculture farms
- 5) Production cooperatives
- 6) Joint agricultural circles
- 7) Nonsocialized sector
- 8) Final net production
- 9) Agricultural net production

Source: "Overall, final, commodity and net production in 1960-80,"
Main Statistical Office, "Information" No 198, 1981.

A detrimental campaign for destruction of roadside, property line and infield tree lines was conducted. This resulted in a weakening of biological resistance to plant pests due to a gradual extinction of wild birds.

A biodynamic concept of agriculture is beginning to be timidly voiced. The point is to have farming that does not endanger natural environment by applying chemicals to excess nor pollutes it with so-called wet method based on using liquid manure instead of barn dung. The biodynamic trend is already forcefully represented in the West. Its motto is: not less, but more food, without polluting natural environment.

To be ranked among major causes of an apparent shortage of meat are those that go beyond the farm sector. They have caused an abrupt increase in demand for meat in Poland. Those most important in my opinion are:

1. Propaganda activities, conducted by the political as well as other entities, in essence, advancing as one of society's goals the catching up with the most economically developed Western countries, the U.S. in particular, in per capita meat consumption. It was forgotten that a country's level of economic development is ultimately determined by the amount of national income, rather than by the number of kilograms of meat consumed per capita. The results were not long in coming.
2. A mistaken economic theory has claimed that prices are constant under socialism. Its erroneousness was demonstrated by life itself. The best example is provided by Hungary whose economy is the soundest among the countries of people's democracy while prices rise as needed to maintain the country's economic balance. In Poland, the fallacy of this theory came to light as early as 1970 when the government initiated the disastrous (2.5-fold) increase in sugar prices. That "on the whole" well-founded increase had not

been prepared for in the public opinion, fed for years with those mistaken theories, and the scale of that increase proved to be unacceptable to the nation. The government, fearing society's reaction, halted a comprehensive price increase, especially in food. That was the beginning of the pernicious, unreasonable freezing of prices.

3. Increases in personal incomes, unsupported by increments in national income together with the previous factor, had a cumulative effect along with excessive expansion in the currency... 'empty' money coupled with simultaneous contraction in the volume of commodities in the consumer market. This produced increased income-related elasticity in the demand for food, mostly meat. That elasticity amounted to 0.6 in 1979, which means that per every zloty of wage increment 0.6 zloty was spent for food. Prior to the institution of food ration cards, due to continued restriction of industrial goods in the market, that indicator was already close to 1.0.

4. Growth in the percentage of nonagricultural population and decline in the percentage of agricultural population. This is connected with the higher meat content in the diet of nonagricultural population, along with the fact that fewer numbers of the agricultural population are producing food for the increasingly more numerous nonagricultural population. In the recent period, diet composition has slightly changed in rural areas because of the currency losing its real value.

Nutritionists and economists agree that the 80 kilograms of meat and even more in the next few years, per capita annual consumption that was stipulated until recently, is not dictated by the needs of the human body. It is worth it to remind ourselves that meat (variety meat included) consumption was 39.7 kg in 1955, and 49.1 kg in 1965 per capita. Yet during those periods we were not an undernourished nation in our own societal perception.

Agricultural Sector's Stipulations Have Formally Been Settled

The past two years brought tremendous changes in the agrarian policy and in economic policies affecting farmers. Many issues, accumulated over the years and seemingly insolvable, have been either formally solved or assurances that they will be handled have been obtained.

Providing a basis for concrete decisions and measures, on occasion still improper because of lack of experience and too formalistic adherence to the rule, is the assertion that "there is only one agriculture." Three sectors are maintained: private, state and cooperative, but all three are taking advantage (in theory, for the time being) of the same rights and have similar duties.

The stipulations that have been formally settled on are in the course of implementation are listed below. I will discuss them separately for each sector.

A. The Private Sector

- Recognizing the principle that the private sector constitutes a permanent component to the socioeconomic system under socialism. The Sejm (Parliament)

has introduced this principle into the Civil Code. However, farmers are demanding that this principle be inserted in the PRL constitution as well. The government has said that such language will be inserted in the constitution at a time when other amendments are being included in it.

- Rejecting the doctrine according to which a private farmer is an exploiter and his possession of capital goods creates preconditions for him to be so. That doctrine had made it difficult for farmers to offer their production services to other farmers, using their own equipment. Aside from political discrimination of farmers offering such services, this involved underutilization of farm equipment in the private sector.

- Revising the retirement law by deleting the requirement for a farmer's transfer of land to the state before retirement benefits are granted, along with a revision of the levels of pension and retirement benefits.

- Prioritizing the food sector in the use of state resources and assistance and assuring accelerated production of capital goods (especially machines and equipment) for agriculture.

- Raising prices of major farm products and assuring the application of the principle of advancing prices to keep pace with increases in the prices of capital goods, services and consumer goods. The authorities have pledged to maintain a parity of agricultural incomes with incomes of wage-earners not to drop below 100 percent.

- Assuring that farmer self-government is established on various levels. The matter of creating Agricultural Chambers is under discussion. The decision has been made to establish an experimental Agricultural Chamber.

- Substantially liberalizing the regulations on land transfers. Restoring the right to inherit land to all family members with no restricting clauses. Putting the teeth into the law on protection of usable agricultural Development Fund to the authority of rural assemblies.

- Accepting the principle that bank credit is always interest-charges and repayable.

- Creating the conditions for development of craft, production and service businesses to serve agriculture and agricultural population.

- Abolishing the dependence of private farming on arbitrary decisions of gmina chiefs.

B. The State Sector

- Instituting the new financial-economic system in keeping with the "three S" [self-government, self-dependence, self-financing] principle adopted in the economic reform currently implemented. The system finds its expression in the following changes over the past situation:

- Profitability is accepted as the only criterion of enterprise effectiveness. A system of bonuses for the workforce is related to profitability. Deficit enterprises to be maintained must achieve complete and lasting profitability in the course of three (five in exceptional cases) years. Those enterprises that fail to reach profitability will be reorganized or eliminated.

- Subsidies are abolished. Budget subsidies will be received by enterprises only on account of their carrying out specified tasks contracted for by the state provided those tasks are unprofitable for the enterprise.

- Employee self-government, elected under democratic principles (temporarily suspended), is to be instituted in enterprises.

- Write-offs of bank credits are abolished.

Bank credit is interest-charged and repayable. Individual directions in enterprise activity can be supported by differentiation in credit interest rates and in numbers of years of grace periods.

- Organization and structure of enterprises are left to the decisions of their management. They must favor complete profitability to be attained by the enterprise. In turn, it is recommended that reasonably large enterprises with a single physical plant be formed. In multiplant enterprises, component plants should operate under a self-financing system placing a priority on complete internal financial clearances. Regardless of the economic-financial system becoming effective, there has been a revision in the views on the correctness of developing industrial nodes in livestock production, along with a critical assessment of excessive size of animal herds in industrial farms;

C. The Cooperative Sector

The most recent RSP delegate convention, held in November 1981, approved on adjustment in the economic-financial system to meet the requirements of the economic reform. That system approximates the one adopted by the state farms, while preserving cooperative specificity. Recognition was also granted to the principle of restoring genuine ideas of cooperative movement in the RSP. The following principles to be effective in the agricultural production cooperatives were enacted:

- The command-distribution management system by Voivodship Unions and Central RSP was abolished.

- The system of central subsidies was also abolished, especially in production. A production cooperative constitutes an autonomous self-financing enterprise.

- A principle of nonsupport to poor cooperatives by administrative methods was accepted. Only those enterprises will continue to exist which, while constituting independent enterprises, will be able to assure sufficiently high overall and subdivided income, to the satisfaction of their members and allocated PFZ land was abolished as well.

D. Joint Farms of Agricultural Circles' Cooperatives

Although there are no laws on this issue, there is a trend to eliminate this type of socialized farms completely. According to the latter of the economic reform, the principle of continued profitability is effective in this sector as well. In effect, many ZGR's have already disbanded, some joining the state sector, others transforming into ZGR's. It can be expected that an additional number of ZGR's will dissolve. Desirable, those farms having full potential for enduring and becoming fully profitable should transfer to either sector of socialized agriculture (state or cooperative). Agricultural cooperative circles as enterprises rendering production services to private farmers are still under discussion. The prevailing view is that institutions offering mechanical services in private farming are needed. Discussions cover the range of their activities, pointing out the need to handle in a palpable and effective manner, overhauls of farm machines and equipment now in private farms. Complete clarity on the organizational mode of those cooperatives is still lacking.

This ends my comment on what has been done or is being done as far as farmers' stipulations are concerned.

Prospects for the Nearest Years to Come

Basic to Polish agriculture and largely preconditioning the country's food supply is the private sector, working approximately 75 percent of Poland's agriculturally usable land and currently providing a higher final output per hectare than does the socialized sector. Thus, possibilities for growth in domestic food production largely depend on whether private farmers are interested in expanding production. This will be contingent on the purchasing power of our currency, in other words, on the volume of personal consumer goods manufactured by industry and, to no lesser extent, on the volume and variety of agricultural capital goods available on the market. As this indicates, increases in agricultural production in our country are contingent on the capabilities of our industry.

An additional, no less important condition is a possibly normal course of weather conditions in the next few years, which would allow for maintaining the crops on current levels. Unfortunately, the current year 1982 has already aroused serious apprehension because of the springtime return of cold weather and the drought in certain regions.

A. People

Work conducted by professor A. Szemberg at the Agricultural Economics Institute indicates that aging and feminization of the farming population have been halted. It can be expected that there will follow instead some improvement in the demographic structure caused by (actually a rather restrained) increase in confidence in the lasting character of private farming, by reduction of employment in nonagricultural sectors, by difficulties in obtaining food in urban areas and possibly by the possible success of the government's private settlement program for undeveloped areas.

Still, a return to agriculture should be stipulated only with regard to those farms which lack manpower and not with regard to overmanned farms, as the latter would provoke major social complications like the emergence of a category of "unwanted" people competing for incomes derived from a farm. Above all, it is desirable that people return to farms where there are no heirs and that new farms are manned under the settlement program. There should be strong support for those who opt to return to the countryside to take nonagricultural occupations in small-scale industry, crafts and services.

Intense migration of young women from the countryside to towns is a serious problem. They leave in search of different types of work and lifestyles other than those in the country. In effect, there are a million more women than men in the towns. There is a balanced ratio in the countryside, but there are fewer young women, and young males frequently cannot find candidates for wife.

B. Capital Goods

In the next several years, farming will receive reduced quantities of certain basic capital goods, in particular, fertilizer, pesticides protein fodder and microelement-content fodder. This will involve the need of more even distribution of fertilizer, i.e. shifting a portion of fertilizer supply from the socialized sectors to the private sector along with more thoughtful management of fertilizer. Among the preconditions for effective utilization of fertilizer is lime treatment of soils to reduce their acidity. In an acid environment, fertilizer components are washed out of the soil.

A reduced supply of concentrated fodder will force farmers into rational utilization of their own basic and secondary feeds, including green high-protein fodder, alfalfa, clover, serradella, defatted milk, whey and buttermilk, potato industry waste (mash, pulp), sugar beet pulp and, most important, fodder from the extensively utilized grasslands. Numerous microelements necessary in livestock feeding are found in industrial waste: their exploitation should be exacted.

Serious apprehension is raised among farmers by restrictions on energy inputs: liquid and solid fuels and gas and electric power. Although currently the government promises not to apply fuel restrictions in the food sector, the situation may deteriorate so that far-reaching economy measures may be necessary. In connection with this prospect, existing potential of draft horse power should be used in full. According to the concerted opinion of agricultural mechanizers, the horse currently constitutes the cheapest sources of traction in agriculture. We have 1,725,000 horses in Poland. Preparations should be underway so that in the near future full possibilities are provided for utilizing wind and water, and later, direct solar power. Currently, however, the State Forest sector should be taken up on its offer to sell large quantities of forest timber for power generation, heating and construction, provided the wood is prepared for haulage and hauled by the bidder. That wood can also be used in local furnaces to burn bricks and other ceramic products. Consideration should also be given to applications of wood gas to power internal combustion engines, successfully applied during World War II.

C. Production Processes in Agriculture

An issue of tremendous, perhaps larger than those discussed heretofore, significance is the necessary restoration of principles of rational agricultural engineering and animal husbandry. This can come about, almost automatically, by the state enterprises being forced to attain continued profitability and, on the part of farmers in the private and cooperative sectors, to attain satisfactory income levels. In crop production, a return should first be made to rational agricultural engineering and application of all available methods in biologically combatting the pests. Because of necessary protection of human environment from excessive chemical dissemination, I place special emphasis on more efficient utilization, rather than constant increase in the doses, of fertilizer. Steps should also be taken to assure proper handling and use of organic fertilizer especially that of animal origin. A shift to high-sugar beet varieties should be effected, along with a raise in sugar beet purchase prices. Potato industry should be developed, to produce potato meal and potato alcohol, among other things, for export purposes as well. In livestock production, hog production should be developed on the basis of domestic fodder: potatoes, high-protein green fodder (dried material), screenings and milk-processing waste. Cattle raising should be as the main line since it constitutes a basis for crop production via barn manure. Cows should be seen as factories of animal-protein which aside from other uses can be a fodder additive for nonruminant animals. In milk cattle breeding perennial grasslands should be utilized above all others. Particular attention should be paid to careful storage and maintenance of fodder. This is possible, given meticulous care on the part of the producers.

All available assets in agriculture that have been unexploited or wasted thus far, should be utilized.

Cautionary Conclusions

Farmers' collective memory has perpetuated the authorities' frequent failure to keep their promises. Hence, the present authorities are faced with the need to win farmers' confidence, which will be largely responsible for perpetuation of motivations stimulating productive labor. Danger lurks in nonfulfillment of obligations on those issued in which such obligations have been undertaken. The more important ones are listed:

- The promise to insert language referring to permanence of the private sector in Polish agriculture into the constitution.
- Maintaining farmers' income parity at a level at least as high as average incomes of wage-earners. The point here is to uphold the principle of advancing prices.
- Recognizing the necessity of establishing a private farmers union representing peasant interests, combined with a pledge on the part of the government to institute self-government in state farms.

- Unrestricted turnover of land for agricultural purposes within and between socioeconomic sectors.

- Withdrawal from effecting repeated changes in the area of trade in (and state purchasing of) agricultural produce.

The dangers listed above pertain to socio-psychological concerns that at this time largely determine farmers' motivation toward efficient production (in all the sectors).

To conclude, I emphasize several major points of danger in physical activities:

- A permanent power shortage in agriculture, which can possibly occur in the next decades.

- Depletion of natural resources, primarily rare elements. Even today, less material- and energy-absorptive technology should be preferred.

- Pollution of natural environment by uncontrolled poisoning of the atmosphere, soil and water by chemical components.

- Excessive increase in fungus diseases in cultivated crops, along with pests, primarily insects, owing to their new forms and varieties being developed, either immune to applied chemical agents, or due to the lack of indispensable chemical agents.

- The last two hazards are inversely proportioned. Improvement in one worsens the situation in the other: excess amounts of chemical agents cause environmental pollution.

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ECONOMISTS' CRITICISM OF PLANNING PUBLISHED

Warsaw ZYCIE GOSPODARCZE in Polish No 41, 31 Oct 82 p 9

[Text] The opinion of the Polish Economic Society's Main Board concerning "Variants of the Proposed National Socioeconomic Plan For the Period Ending in 1985 And Introductory Criteria For the Plan For the Years From 1986 to 1990." The opinion was also forwarded by the Main Board to the Planning Commission and to the Boards of the Society's departments.

This paper synthesizes and compiles the most important comments concerning the examined work. The comments were formulated during discussions conducted in the Society's forum and were contained in written opinions forwarded by the Society's organs and by individual members of the Society's management. The paper is based mainly on statements made during the working discussion on the paper, which took place at the Society's Main Board Plenary Meeting on 28 Sep 1982, on the minutes of the Society's meeting which took place 24 Sep 1982, and on the opinions forwarded by the Society's voivodship departments and by members of the Main Board.

I. General Comments

1. First it should be emphasized that we are aware of the special problems that working out of the plan's criteria entails, in view of the lack of clear basic factors determining the future economic situation. However, the importance of the issue makes it necessary to formulate critical comments and doubts, beginning with more general questions, since the implementation of particular postulates depends on the ability to solve the general questions.

2. The economic objectives outlined in the paper discussed (i.e., the description of material conditions of the people) are, from the vantage point of the people, extremely modest, but at the same time it is unrealistic to expect their full implementation in light of the way the main interdependent factors determining the country's economic situation are shaping at present. The factors include the implementation of economic reform, the sociopolitical atmosphere, plus foreign debts and linked problems of imports needed to get the economy going. Thus, on one hand, the document discussed is not optimistic enough, while on the other hand, it is unrealistic.

Without a significant improvement concerning the three factors, the key criterion, which assumes a rapid improvement in the management efficiency and the resulting enlivening of production, has to be seen as unrealistic. The current tendencies do not point to the likelihood of such an improvement. Thus, the fulfillment of even the modest objectives put forward in the plan's second variant, seems unrealistic.

The rate of changes in the economic system is far from the one needed to achieve the qualitative breakthrough in the functioning of the economy. Furthermore, leaving almost all of the organizational-institutional structure of the command-distribution system intact is already a source of informal directive-type action on the part of managerial organs, and in the near future, we may fully return to that system as a result.

Also, there are no sufficiently convincing factors justifying the assumption that the sociopolitical atmosphere will improve. This improvement is necessary to put in motion noneconomic incentives and initiatives of employment. Of course, economic incentives alone, although necessary, are not enough because of the need to limit the increase in income caused by the need to bring back the market into balance. The possibility of hard financing needed to bring efficiency and change to the production structure seems uncertain in view of the lack of mechanisms for negotiating and defusing conflicts.

Of course, these comments should not be seen as a call to create an artificially optimistic version of the plan. We simply want to emphasize the necessity for changing the main factors determining implementation of socio-economic objectives.

3. Generally speaking, the criteria for the objectives are not too optimistic and, in the same time, not too realistic, and the document under consideration seems to lack in appreciation of the economic problems facing the country during the period from 1986 to 1990. This may be due to concentrating attention on the next three years and by difficulties in forecasting events in the following years.

However, it should be stated that a number of factors that were actually discussed in the document may cause the period from 1986 to 1990 to be at least as difficult as the forthcoming years. This is because the payment of foreign debts (this includes the Western countries as well as the USSR) that have been put off and will continue to be put off in the near future, will accumulate. The problem of depreciation will surface at that time in all its severity. The same holds true for the necessary rebuilding fixed assets for production. The energy shortage may surface again and limit production growth. Other problems, such as stagnation of the export of raw materials, are also possible. But in the same time, it is difficult to count on putting in motion sufficiently strong opposite incentives, if the current tendency in the area of the economic reform and other factors described in the item 2, continue.

4. Some important statements contained in the examined work are insufficiently documented and it is difficult, and sometimes even impossible, to develop a point of view on them. Mainly, it is unclear, how the three discussed variants were developed, since the criteria on which they are based are formulated too broadly. Because of this it is unclear which choices are available. For example, in the second variant it is unclear what "normalization" of the situation in trade with capitalist countries means. Also, it is not specified what growth factors are different in the emergency variant, as compared with the first variant. It is only known that both variants forecast continuation of current restrictions on the part of the capitalist countries--our creditors.

5. Despite emphasis in the document on the necessity of significant increase in the management effectiveness, the main factor of the increase--the economic reform--has received very broad treatment and has not been sufficiently linked to the rest of the work.

The proposal presented does not seem to come close to the kind of economy that would be in accord with the spirit of the reform. For example, it should have been specified where and when the elimination of differential treatment is projected, both in the spheres of production and consumption. In general, the "Variants" show a glaring discrepancy between verbal statements concerning the significance of the economic reform and the content of the second chapter ("The Main Directions of the Socioeconomic Policy") which, from the methodological point of view, received traditional treatment that assumes predominance of administrative means.

II. Detailed Comments.

1. The following, more specific postulates were formulated with the knowledge --and we want to emphasize it--that the possibility of implementing most of them depends to a considerable degree on satisfying more general conditions that were already discussed. Most of the postulates and comments, especially those formulated at the Society's Main Board meeting, are in accord with the views of the Consultative Economic Council. Special attention ought to be given to the following questions:

a) We believe that it is necessary to conduct a "tough financial policy" concerning enterprises and other units whose managing does not show that they can be self-financing and does not hold a promise of improving the results of their activities. It is also necessary to consistently uphold the principle of elimination of such units, including bankruptcy. Concerning wage policy, we support the emoluments variant in which the size of the employees' income depends on their individual efficiency and on the results of the functioning of the enterprise.

b) Social policy should be conducted externally, by the state, within the framework of the budgeting possibilities of the state. It should be linked to the tax rate, payment rate, and other charges included in the budget. This postulate is a result of a conviction that the most realistic and effective way of coming out of the crisis lies in restoring the proper meaning to labor productivity and in reflecting this in wages.

c) It is necessary to thoroughly work out instruments of the economic policy that would encourage enterprises to eliminate excessive employment. Changes should be made in the FAZ formula. Increases in the wage fund should be taxed, with the exception of the increases resulting from labor productivity which should be favored.

The "Variants" gave traditional treatment to the problem of field economy. Regional self-governments are almost not present there, except for verbal declarations. The plan is, as before, "divided" among voivodships, but it does not insure the increase in the autonomy of regional organs.

e) We consider intensification of free market machinery and equipment transactions as an important (but not mentioned in the document) instrument for restructuring production. According to the spirit of the reform the state should be viewed as an organizational unit in charge of ordering tools.

f) It is necessary to make radical changes in the investment system. This includes creating for enterprises investment opportunities within the framework of self-financing.

g) It is necessary to create more favorable conditions for the development of apartment construction, making more use of individual resources of the population and creating small decentralized apartment cooperatives and many small construction enterprises.

h) We are against statutory return to a 6-day week, since we see a possibility of a variant based on voluntary work on free Saturdays. The current rules concerning payment for work on free Saturdays should be preserved, and enterprises should be free to choose the way to organize their work.

2. We also find it necessary to remove the following gaps and doubts:

a) The employment policy and balance of manpower are treated superficially. This holds true especially for regional balances and for balances in more important branches.

b) The expected loss of 300,000 employees from construction industry is not explained. It is true that a significant part of the work force has to leave this industry in view of considerable limitations on investment activities. However, the structure of tasks is being changed (there is an increase in the rate of modernization, in renovating, and a decrease in the number of new constructions. There is also an increase in finishing work in halted investments). The changes cause us to look from a new vantage point at the question of work efficiency in this sector of the national economy. Also in other sectors there are significant changes in the structure of the range of products and in services that require a different approach to employment.

c) The balance of the country's foreign debts should be an integral part of the criteria. The balance includes the expected exports, imports, and

amounts of paid debts and the increase in interest on loans from capitalistic countries, as well as from CEMA.

d) The projected growth rate of agricultural production is much higher than the rate accomplished at any time in the history of PRL. This does not seem a realistic objective.

e) It is certain that the investment issues are insufficiently worked out; e.g., there is no list of investments that have not been completed and there is no plan for their implementation. Outlays for mechanical investments have been distributed among voivodships.

f) It is necessary to compile "an inventory" of our economic potential including bottlenecks and strict limitations.

III. Conclusion

We believe that it is necessary to prepare a new version of the variants of the National Socioeconomic Plan for the period up to 1985 and of the introductory criteria for the years 1986 to 1990. The new work should be ready to be forwarded to the Sejm after it is evaluated by experts. We also believe that independent (competing) teams of experts should work on each variant. Furthermore, we feel that an optimistic variant highlighting opportunities for faster reconstruction of the national economy should be prepared. We are for a 3-year and a subsequent 5-year plan, and the period covering the 3-year plan should give significance to each of the following 1-year plans.

9959

CSO: 2600/74

FULFILLMENT OF 1982 PLAN, PREPARATIONS FOR 1983 DISCUSSED

Bucharest REVISTA ECONOMICA in Romanian No 41 15 Oct 82 pp 6-7

[Article by Mircea Pirjol: "How We Are Working To Prepare To Achieve the 1983 Plan"]

[Text] The recent plenary session of the RCP Central Committee approved documents of special significance, with central focus going to the draft economic-social development plan for 1983.

The overall plan provisions for the coming year stress the qualitative facets of economic activities, more clearly denoting the fundamental characteristics of the five year plan of quality and efficiency in all fields, especially those with regards to the better use of raw materials, the more sustained reduction in the consumption of materials, fuels and energy, the production of high quality products that are competitive on foreign markets and the maximum use of the production potential in industry and the other branches with a high level of efficiency. Once the parameters of the plan have been established, the decisive steps now become the preparatory works of finishing all those elements that will influence its fulfillment. These are activities that must be carried out in parallel with the sustained efforts to achieve this year's plan and to recoup certain shortfalls in different areas of activity.

As the proceedings of the plenary session also showed, the indicators for the 1983 plan already have their material base assured under conditions of a more accentuated use of domestic resources and a strict limitation on imports, of each enterprise, central and ministry achieving its physical production tasks in the contracted amounts and types, of strictly staying within the planned consumption standards and of fully achieving the tasks for recovering and using all reuseable materials, secondary energy resources and reconditioning spare parts and subassemblies. This succinct list actually contains the principal directions that must receive the attention of the responsible authorities in the enterprises, central, ministries and central reporting organs for the purpose of ensuring all the conditions for a sustained effort to fulfill the plan provisions right from the first days of the new year.

Contracting Actions - Finalized in the Most Effective Way Possible

Special measures are required with regards to the detailed preparations for delivery-supply relations between the economic units, within the framework of the approved plan balance and on the basis of concluding economic contracts

in the shortest possible time, Contracting actions for 1983 are underway and in a series of branches they have already concluded contracts to a significant degree. In the main branches of industry, contracts have already been concluded that represent approximately 50 percent of the volume of the planned goods production for 1983 for domestic consumption, compared to approximately 40 percent at the same time last year.

Despite all this, for some products we must work more energetically for the purpose of completing all the details that concern contracting, especially in the following areas:

- speeding the Ministry of the Metallurgical Industry's centralization of specifications for the sizes and types of non-ferrous metals and finalizing in the shortest possible time the production schedules, on the basis of which assignments will be issued keeping in mind the fact that for ferrous metallurgical materials contracting practically has not even started;
- having the centrals within the Ministry of the Machine-Tool, Electrotechny and Electronics Industry, with the direct assistance of the ministry and the reporting organs, clarify the still unresolved problems for a series of electro-technical and electronic products so that they can quickly extend the contracting, which currently only accounts for approximately 30 percent of the goods production;
- finalizing the movement of resources to investment projects, especially with the users of construction materials, so as to be able the move to the use of computers in scheduling the optimum use of transportation, keeping in mind that for the Ministry of Wood Industrialization and Construction Materials overall contracts have been set for less than 43 percent of the production slated for domestic consumption;
- immediately concluding all the delivery contracts for coal and ores, where currently there are problems that have been identified regarding the levels of production and the destinations of these items, but these do not justify the delays in fully contracting for the production, of which only 50 percent has contracted sales;
- in the units of the Ministry of Light Industry, although contracts have been concluded for 50 percent of the goods production slated for domestic consumption, the situation is unsatisfactory, compared to last year when at the same time the level was 80 percent of production. This means that measures must be taken to finalize contracting with the trade units.

What must be stressed is the fact that the immediate conclusion of contracts is not a goal unto itself, but a primary condition so that the economic units, by knowing with certainty what they have to produce and deliver, will be able to define their own needs. In order to satisfy these needs, there must be a series of linked solutions with other partners who must deliver different materials and subassemblies.

Along this line of thinking, it is necessary for the industrial central and the ministries to work more effectively to finalize the international cooperation programs and, on this basis, to move to concluding firm contracts for this cooperation. It must be very well understood that, even if we are talking about enterprises in the same central, the delivery of semi-finished goods or products does not constitute an act of "understanding" or a contract, but, in the spirit and letter of the law, an unambiguous obligation that is subject to all the rigors stemming from economic contracts.

In this regard, we can note the great difficulties that have been caused this year by the failure to adhere to the cooperative deliveries for semi-finished goods between the units of the Ministry of the Metallurgical Industry - for electric motors, automation equipment and others in the area of machine building. We can also give numerous other examples and deficiencies that stress the objective need to have the timely and detailed solution to all these problems of cooperation between enterprises.

Increased Responsibilities for Providing the Energy and Raw Materials Base

Concluding economic contracts allows each enterprise, central and ministry to know in detail the objectives of its activities for the coming year. Without a doubt, a decisive role in preparing the plan belongs to, however, providing the material, technical and organization conditions, right from this year, in order to effectively achieve the established production. In this regard, there are special tasks in those sectors that provide the energy base and raw materials.

As was stressed numerous times by the secretary general of the party, comrade Nicolae Ceausescu, the measures established in the area of providing fuels and energy are vital for the scheduled development: the qualitative changes that will take place in the primary energy balance by increasing the production and consumption of coal and bituminous shale (which next year will total more than 54 million tons compared to 44 million tons in 1982), concomitantly with a limitation on the domestic consumption of crude oil and under conditions of strongly reducing the norms for energy consumption, rationalizing vehicle transportation and strictly economizing energy in all sectors of activity.

In order to provide electrical and thermal energy, the draft plan calls for the firm promotion of the orientations established by the 12th Party Congress regarding increasing the level of supply from domestic resources to meet the required amounts, which next year will represent over 90 percent of the economy's primary energy, compared with 84 percent in 1981. In this area, special attention must be given to investment projects for building and starting up the production facilities that have been scheduled for coal, bituminous shale, crude oil and, especially, those for the recovery of secondary energy resources. We will especially have resolve this year the problems of supplying certain technological equipment for the mining industry, such as mechanized coalface equipment for thick layers of pitcoal, as well as delivering tubular materials and drilling gear needed by the petroleum industry.

The 1983 energy consumptions are rigorous sized on the basis of consumption standards and will have to be used with greater firmness in order to prevent the situation of this year when, for the first 8 months, the standards were exceeded by over 1.4 million tons of conventional coal, especially in the chemical and metallurgical industries and in the Ministry of Electrical Energy. Similarly, we should note the tasks to reduce the total amount of consumption of thermal energy by approximately nine percent compared to 1982, with the consumption of thermal energy produced by petroleum products being decreased by approximately 20 percent. All this means that in each unit they will have to take the necessary measures in the direction of increasing the efficiency of burning processes, modernizing or replacing certain installations having high levels of consumption, insulating pipes, eliminating losses of the thermal agent and adhering rigorously to the working temperatures in the technological processes and those where standards exist for heating so that even during November and December we will be working with the standards approved for 1983.

In the energy field, special stress will have to be placed on the achievement, beginning this year, of a transition from boilers in thermal power stations using liquid fuels to those using coal, keeping in mind that for next year the production of thermal energy using coal will increase by 73 percent, while liquid fuels were correspondingly reduced.

In 1983, the metallurgical industry has tasks of separate special significance with regards to the diversification and growth of the quantitative level of production. For the purpose of providing the varieties of metals needed in machine building and other branches, it is necessary to accelerate work to bring about start-ups, even during the fourth quarter of this year, of certain new production facilities used in the calculations for production in 1983 at the steel combines in Hunedoara, Galati and at other units. This must be done so as to ensure the slated production increases in pipes, stainless steel plate and sheet, drill pipe and metallic cords, where the plan tasks call for increases of 40-57 percent compared to this year. In addition to the quantitative tasks, metallurgy also has the requirement to start production on a substantially increased variety of items in the shortest possible time - which will mean a decrease in imports - and whose introduction into production will ensure a substantial increase in the level of the use of metals.

Problems of this nature are also facing the chemical industry, which must provide the light, mining, machine building and transportation industries with increased amounts of synthetic threads and fibers, dyes, detergents, rubber materials and other technical items made of rubber and plastic materials, tires and other items. That is why we must concentrate all efforts during this quarter and in the first quarter of next year in order to accelerate the start-up of facilities that are nearing completion and, at the same time, to work so that the facilities that had arrearages during previous years will operate at the project parameters.

In the center of concerns, it is necessary to place the intensification of activities to recover and use reuseable materials, which constitute a main,

sure and efficient source that will provide 30-60 percent of the necessary amounts for a series of basic raw materials. This is even more necessary since this year plan provisions were not attained in the recovery of copper materials, metallic lead, zinc, non-ferrous ash, paper-cardboard, polyethylene and others. Also, some facilities for the use of reuseable materials that were scheduled in the approved program were delayed or not even started, as was the case for recapped tires, lead oxide processing, oxalic and formic acids, plastics, non-woven textiles, phosphor-gypsum board and others.

An important cause for the failure to achieve the planned production this year is the failure to carry out quality and timely capital repairs on installations and equipment, which brought about accidental stoppages and extended shutdowns for repairs. In this context, it is necessary to have better preparations and organization in all those activities that involve the proper maintenance of fixed production assets and the achievement of all the conditions for good quality and timely overhauls and repairs.

In the first half of the year, the capital repair plan in industry was only 90 percent completed, with the more significant shortfalls occurring in machine building, mining and transportation. As a result of accidental stoppages, 120 million production hours were lost at basic installations and on basic equipment in the main production branches, which brought about the failure to produce certain resources. These situations are due to a great degree to the fact that a series of parts and subassemblies were not produced and that, in general, preparations for repairs were not appropriately made.

For some installations and equipment, they still have not identified and started production on all parts that wear out, which causes means facilities to operate at less than capacity. Greater efforts are made to obtain imports of parts than to start production of them, even though experience has shown that we can produce in Romania items of the greatest complexity. In this context, I feel it would be opportune to organize special sections or shops in the most representative units that would be involved in the start of production of parts that are imported, both for their own units and for the entire central, with the indicators and payments taking into account the equivalent amount of hard currency saved. Through such an organized activity, for which the economy has all the necessary equipment, we could contribute to a better operation and maintenance of fixed assets.

As has been shown, there still are a sufficient number of problems that need to be more effectively resolved in contracting for production, in organizing the supply system and in managing materials and stocks. Through energetic measures, it is necessary, now, to decisively work to eliminate immediately any delays and to thoroughly prepare for next year's plan.

8724
CSO: 2700

STATUS OF, PLANS FOR SMALL BUSINESS IN CROATIA

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 4 Nov 82 p 3

[Article by Jasen Grubic]

[Text] Why is there once again debate on the need for more rapid development of small business, when problems in connection with it in recent years have several times been on the agenda of the General Association and the League of Associations of Independent Businesses, agencies of the Croatian Economic Chamber and the city trade unions, the republic specialist committee, IVS [Executive Council of the Assembly] and the Croatian Assembly? In the meantime the republic Social Agreement on the Development of Small Business has been signed, on the basis of which broader activity should be instituted on the implementation of the developmental policies that have been accepted. Also under way is the coordination of the republic agreement with federal regulations.

In order to involve all signers of the agreement, particularly commercial banks, a significant number of opstina assemblies, associations of opstinas and republic interest communities of directed formation, the Croatian Economic Chamber believes that without delay the developmental policies for small businesses must be coordinated conceptually with the economic stabilization policy, and then a program be innovated of measures and activities for implementing the obligations accepted by the signers of the agreement.

Small business cannot remain only a (deficit) production branch of crafts and services. It must create twice the production capacity of present smaller industrial organizations of associated labor and private cooperatives. Only then can small business here in Yugoslavia earn its rightful place in the overall social division of labor and at the same time enable productive employment of a larger portion of the total growth in the active working population.

Structure

In associated labor, small business is made up of 689 economic entities, of which 560 are basic and other organizations of associated labor, 112 are craft cooperatives for private craftsmen, and 17, contract organizations of associated labor. This breakdown emerges from the document "The Conception of the Development of Small Business to the End of the Current Intermediate Plan Period," which was adopted at the suggestion of the General Association by the

Executive Council of the Croatian Economic Chamber. That part of Croatia's small business, organized into the General Association, with 45,000 employees, last year realized 35 billion dinars in total income, and more than 12.5 billion dinars of profit, while contributing about 2 billion dinars to various funds (with a loss of but 62 million).

In private labor, which is organized into 85 opstina associations of independent businessmen in the republic (with an association of those associations), there are 57,700 operators of production and service shops, trades, inns, transportation and commercial services. Since each of them can have up to 10 employees, that sector of small business employs about 35,000 workers (sic), which is unsatisfactory. Nevertheless, those four activities last year produced more than 7.5 billion dinars in income, and the craftsmen paid 2.1 billion dinars of taxes and contributions.

Two years ago the Croatian Organization of Small Businesses was formed, and now it has 160 members including basic and other organizations of associated labor, as well as private craft cooperatives. It sees to importing semimanufactured materials and equipment, acquires domestic goods and takes care of marketing goods and services as well as development in the broader sense. This commercial organization also operates a permanent exhibition of the products of small businesses at the Zagreb fairgrounds, which serves as a clearing house for supply and demand.

New Products

Development of ideas for acquiring spare parts for final products of large systems requires not only coordination of that task, but also a pooling of resources for financing until successful implementation is achieved. Those responsible for development in small business production must be exclusively such systems. In a situation which is not found in their development services, because of a lack of money, in which it would be possible to go beyond ideas, precisely the Croatian Small Business Organization would have to become the strong point in which the resources are gathered for financing the development of such ideas, finding investors and preparing investment projects. Resources would come from where they accumulate for such purposes, in the Republic Fund for Developing Economically Insufficiently Developed Regions, in economic chambers, general associations, self-management interest communities for employment and other entities that are concerned with more rapid development of small businesses.

Those involved in ideas for production of a number of deficit consumer products, from spare parts for durable goods to notions, should be consumer goods producers. The General Small Business Association of Croatia should be obliged, together with the commercial association, to organize and develop ideas on the production of deficit consumer products, to find confinancers for introducing their production, and to assure shop documentation for every new product.

Employment Criteria

Shops that employ up to 10 workers, but that cannot for whatever reason organize into current capacities of associated or private labor, should be offered to

investments in the area of private labor with resources in the ownership of citizens and among workers returning from temporary employment abroad. For production employing 10-30 workers, but that cannot for whatever reason be incorporated into plants of contract organizations or basic organizations of associated labor, investments should be sought in private resources owned by citizens and returnees from abroad and by establishing new contract organizations of associated labor, but also in cooperation with the local community and the opstina assembly.

Developmental Concept

The privately owned cooperative should also, by its own forces or as planners and organizers of the preparation of ideas (by others) for introducing new products, take on part of the load for development, especially where projects that can be implemented by its members are concerned. That should put craft cooperatives on the road to executing one of the chief tasks imposed on them by law.

At the time of the revision of Croatian development documents for the current intermediate plan period, it is essential to modify the goals that small business should achieve in the remaining 3 years. According to the concept adopted, they should contain a marked activation of the area of operations involved in direct foreign exchange income and particularly substitutes for imports, followed by enriching the market with products and services of small businesses to eliminate their financial losses.

Such a concept of development requires directing part of the resources of social reproduction and savings of citizens into small business, and assuring domestic and imported semimanufactured materials for the production and services of that sector of the economy. This obliges small business in the coming 5 years to double its number of production and service workers and with inspection services in the opstinas to "aid" in eliminating improper work.

The Executive Council of the Croatian Economic Chamber has also accepted an innovative proposal of measures and activities in the realm of small business which should contribute to the implementation of the objectives set for completion by 1985. Three groups have been made covering 46 tasks that cannot be postponed, with indications of their performers (which project that this program will be adopted by all general associations, the IVS, responsible republic committees and secretariats, opstina assemblies, trade unions, etc). Periods for completion are also specified. From federal agencies comes preparation of a proposal of changes and additions to the Customs Law to enable pooling of the labor and resources of workers returning from abroad and those of domestic organizations of associated labor, without regard to specialized training or other qualifications of the returnee joining the association. In this the items of the economic inventory imported by returnees and incorporated into the cooperative would be determined by the organization of associated labor, with the import quota being markedly higher than in the case of imports of those items for opening independent craft shops.

Also anticipated is the preparation of proposed changes and additions to the Law on Guaranteeing Payments between users of social resources, which should make it possible for those responsible for economic activities in private labor to satisfy consumption better in the same time period as associated labor.

Republic Responsibilities

Among 31 problems whose resolution is the responsibility of the republic, we will single out several without intending to underestimate the others. First, there is the question of preparing a draft of changes and additions to the Law on Taxes from the Income of Labor Organizations to establish a permanent source for financing new projects and introducing new products in small businesses. It is considered that for that purpose, the Republic could contribute 50 percent of the taxes it receives from income of small business organizations and contract organizations of associated labor.

Also connected to that is the formation (at the General Association) of a fund for financing development of ideas to introduce new products and investment projects. Sociopolitical forces should influence that formation to see that, when self-management agreements are being coordinated to direct resources of social reproduction, all noneconomic production be transferred to small business entities. The development services of those systems should also cooperate in implementing production of new articles in cooperation, as well as in opening new plants in small businesses for the production of consumer goods that are in short supply.

The proposed program insists in this that the private cooperatives and contract organizations of associated labor be equated with labor organizations under overall legal regulation, and that the opstinas strive for establishing more contract organizations, primarily by contributing resources from taxes on the income of such organizations of associated labor to opstina budgets.

12131

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EVALUATION OF RELIABILITY OF 380-KV POWER NETWORK

Belgrade ELEKTROPRIVREDA in Serbo-Croatian No 7-8, Jul-Aug 82 pp 215-218

[Article by Dr Zoran Mlinarevic, M.A., electrical engineer, School of Electrical Engineering, Sarajevo]

[Text] The research described in this article was concentrated on evaluating the reliability of Yugoslavia's basic 380-kv network. After presentation of the reliability indices of certain centers of consumption, it indicates the most reliable centers of consumption and also examines the failures which have resulted and the unsatisfactory conditions of the network.

Introduction

The principal role of electric power systems is to meet consumers' need for electric power as economically as possible at appropriate levels of continuity and quality of supply. Taking that as a point of departure, the role of analyses of reliability of electric power systems comes down to forecasting the system's probable behavior in the future on the basis of past experience. Reliability analyses, along with other analyses, are also very important both in the process of planning and also in the process of operating the system. The principal tasks which are set for analyses of this kind are the following:

- a) in the process of planning electric power systems:
 - i. comparison of conceptual approaches to planning,
 - ii. comparison of alternative solutions,
 - iii. identification of undersized or oversized areas,
 - iv. assistance when various adjustments are made in the plan,
 - v. selection of optimum solutions.

b) in the process of operation of electric power systems:

- i. indication of the place, method and time for expansion and improvement of the system,
- ii. selection of states for bringing facilities on line,
- iii. obtaining quantitative data for making load scheduling decisions,
- iv. selection of procedures for reestablishment of operation after various failures and disconnections.

This article will be limited only to the presentation of certain results of analyzing the reliability of Yugoslavia's basic 380-kv network in order to indicate the importance of conducting such analyses.

The Premises Adopted

For the purpose of conducting with any accuracy analyses of the reliability of electric power systems one must respect various types of failures and disconnections which realistically do occur in such systems. On those grounds it is assumed that active, passive, transient and joint failures can occur.

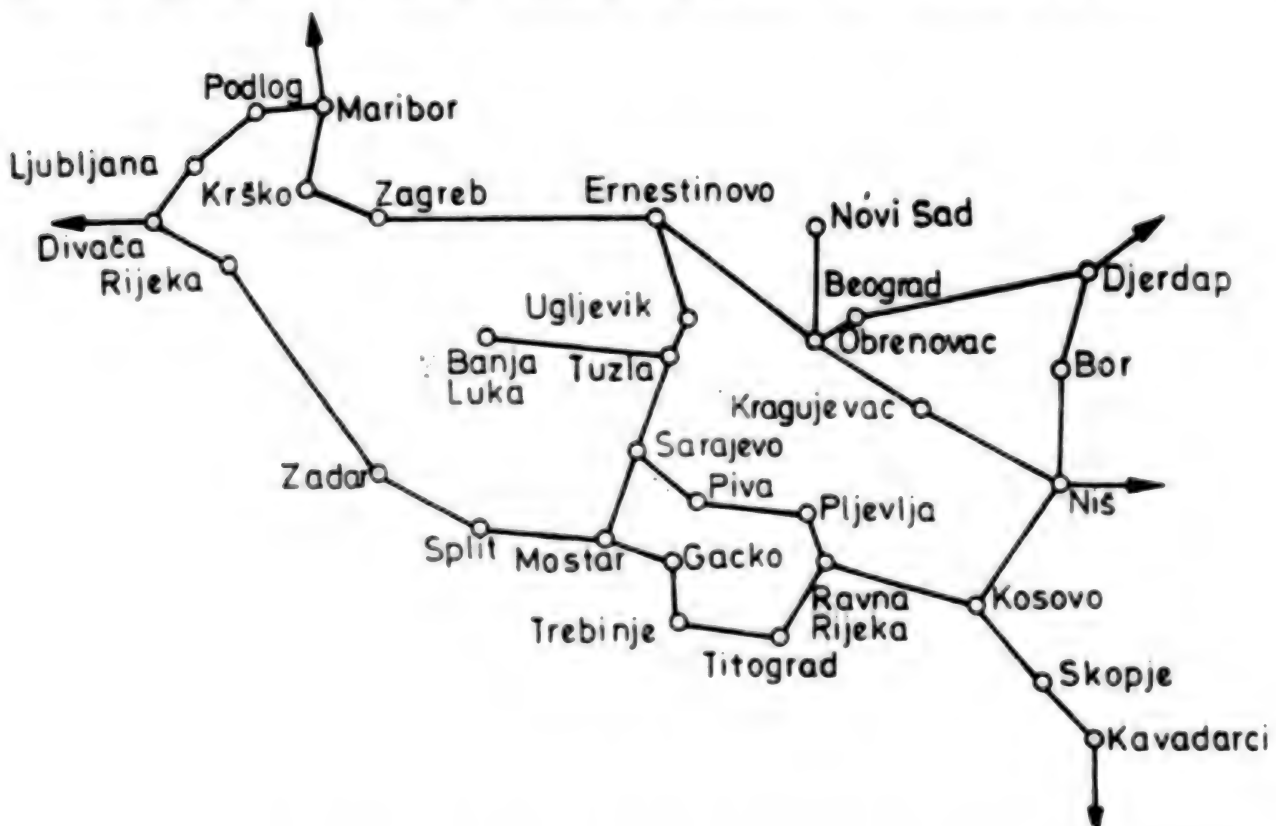


Figure 1. Yugoslavia's basic 380-kv network.

Aside from that, forced, scheduled and transient disconnections are also respected. Since the probability of the occurrence of several simultaneous failures and disconnections of the same kind or different kinds is not negligible, simultaneous failures and disconnections of three components were assumed in this analysis for each center of consumption. Since the failure of protection can cause several sound components to be disconnected, respect was paid to the probability of the failure of protection, and in examination of active failures, consideration is given to the situation where protection does operate and isolate the component which has actively failed, and the situation in which sometimes it does not operate. Failures of elements comprising any electric power system are affected quite significantly by the states of the environment such as weather conditions, temperature, humidity, vibrations and the like, so that in the analysis being presented it was assumed that abnormal weather conditions last an average of 100 hours a year and that they affect the number of outages of transmission lines, since 50 percent of the failures occur in that time. The restoration and reestablishment of operation after various types of failures and disconnections occur must be based on real experience, so that the following actions were assumed to reestablish operation of satisfactory quality: work efforts (repairs, replacement and maintenance), relinkage (reestablishment of operation in the remaining portion of the system by closing normally open reserve feed routes, if they exist), reconnection (switching sound components back on line) and actions to reduce the load (reduction of a part or all the load in one or more centers of consumption in order to eliminate poorer quality service, consideration being paid to the significance of the centers of consumption).

Table 1. Peak Loads of the Centers of Consumption Analyzed

<u>Center of Consumption</u>	<u>Peak Load</u>	
	<u>Active (MW)</u>	<u>Reactive (MVar)</u>
Ljubljana	250	50
Zagreb	350	100
Ernestinovo	250	50
Belgrade	400	150
Nis	350	100
Skopje	400	100
Titograd	250	100
Kragujevac	200	50
Banja Luka	200	100
Sarajevo	250	100

Yugoslavia's basic 380-kv network (Figure 1) was analyzed, respecting its interconnection with neighboring countries. The calculation was made for 10 centers of consumption, and the peak loads and time curve of load duration were assumed as shown in Tables 1 and 2. Since the economic losses resulting from unreliability are suffered both by distributors and consumers of electric power, those losses had to be computed both for each center of consumption and also for the entire system. That is, electric power distributors are exposed to economic losses of income and possibly penalties for undelivered power, while consumers are exposed to more serious economic consequences such as the

interruption or reduction of production, output of poorer quality, breakdowns, etc. It was assumed in the analysis that the distributor loses 2.0 dinars per kilowatt and 2.5 dinars per kilowatt-hour undelivered, and the figures on economic losses of consumers are shown in Table 3. The figures adopted on reliability of components are shown in Table 4.

Table 2. Time Curve of the Duration of the Load

<u>Specified Level of Power (% of maximum power)</u>	<u>Probability of Occurrence</u>	<u>Average Duration of Higher Load (hrs/hr)</u>
0	1.0000	8,760.00
10	0.9999	4,379.00
20	0.9693	169.82
30	0.8555	35.67
40	0.6710	21.45
50	0.4971	10.49
60	0.3358	7.21
70	0.2035	6.78
80	0.1168	3.91
90	0.0227	1.34
100	0.0000	0.00

Table 3. Figures on Economic Losses to Consumers

<u>Indicator</u>	<u>Center of Consumption</u>				
	<u>Ljubljana</u>	<u>Zagreb</u>	<u>Ernestinovo</u>	<u>Belgrade</u>	<u>Nis</u>
Critical outage time when economic losses become high (seconds)	0	0	90	0	30
Average economic losses to consumers per kilowatt not delivered when the duration of the outage is less than critical (dinars/kwh)	0	0	100	0	50
Average economic losses to consumers per kilowatt not delivered when the length of the outage is greater than or equal to the critical time (dinars/kw)	400	500	200	600	300
Average economic losses to consumers per kilowatt-hour not delivered when the length of the outage is greater than or equal to the critical time (dinars/kwh)	300	300	300	300	300

Table 3 (continued)

Indicator	Center of Consumption				
	Skopje	Titograd	Kragujevac	Banja Luka	Sarajevo
Critical outage time when economic losses become high (seconds)	0	0	60	120	0
Average economic losses to consumers per kilowatt not delivered when the duration of the outage is less than critical (dinars/kwh)	0	0	200	150	0
Average economic losses to consumers per kilowatt not delivered when the length of the outage is greater than or equal to the critical time (dinars/kw)	400	300	200	300	400
Average economic losses to consumers per kilowatt-hour not delivered when the length of the outage is greater than or equal to the critical time (dinars/kwh)	300	300	300	300	300

Table 4. Figures on Reliability of Components

Indicators	Buses	Circuit Breakers	Long-Distance Transmission Lines	
			Normal Weather Conditions	Abnormal Weather Conditions
Total number of failures (failures per year)	0.05	0.010	0.403	16.200
Number of active failures (failures per year)	0.03	0.060	0.177	14.175
Number of transient failures (failures per year)	0.10	0.500	0.500	40.500
Amount of maintenance (disconnections per year)	0.25	0.250		0.25
Average length of maintenance operation (hours)	8	8		12
Repair time (hours):				
Minimum	12	12		36
Average	24	24		72
Maximum	36	36		96

Table 4 (continued)

Indicators	Buses	Circuit Breakers	Long-Distance Transmission Lines	
			Normal Weather Conditions	Abnormal Weather Conditions
Relinkage time (hours)	0.02	0.020		0.08
Reconnection time (hours)	0.04	0.040		0.10
Probability of failure	0	0.001		0

Table 5. Computed Reliability Indices of Centers of Consumption

Center of Consumption	Anticipated Number of Outages (outages/yr)	Average Duration of Individual Disconnec- tion (hrs)	Expected Annual Outage Time (hrs/yr)	Average Undelivered Load in Individual Outage (MW)
Ljubljana	1.301842	0.584720	0.761213	116.790000
Zagreb	1.330127	0.658383	0.875733	163.506000
Ernestinovo	1.835711	0.363917	0.668046	116.590000
Belgrade	1.302093	0.584611	0.761218	186.864000
Nis	3.127962	3.242316	10.141842	56.158397
Skopje	4.020032	4.529319	18.208006	185.864000
Titograd	1.302343	0.584502	0.761223	116.790000
Kragujevac	1.302343	0.584502	0.761223	93.432000
Banja Luka	4.020032	4.529319	18.208006	93.432000
Sarajevo	1.835117	0.363917	0.668046	116.790000

Table 6. Computed Anticipated Annual Nondelivery of Power to Centers of Consumption Because of Unreliability

Center of Consumption	Anticipated Annual Nondelivery of Power Because of Unrelia- bility (MWh/yr)	Share in Total Annual Nondelivery of Power Because of Unrelia- bility, %
Ljubljana	89.902014	1.40
Zagreb	143.187594	2.25
Ernestinovo	78.021058	1.23
Belgrade	142.244156	2.24
Nis	569.549600	8.98
Skopje	3,402.420870	53.47
Titograd	85.903182	1.35
Kragujevac	71.122546	1.12
Banja Luka	1,701.210435	26.73
Sarajevo	78.021058	1.23
Total	6,363.582513	100.00

Table 7. Computed Anticipated Economic Losses of Centers of Consumption Resulting From Unreliability

<u>Center of Consumption</u>	<u>Anticipated Annual Economic Losses Resulting From Unreliability (dinars/yr)</u>	<u>Share in Total Annual Economic Losses Resulting from Unreliability, %</u>
Ljubljana	87,487,457.15	3.03
Zagreb	151,698,182.77	5.27
Ernestinovo	64,676,908.04	2.24
Belgrade	188,661,788.96	6.55
Nis	223,124,125.23	7.74
Skopje	1,321,205,958.42	45.83
Titograd	72,301,153.55	2.51
Kragujevac	45,064,467.13	1.56
Banja Luka	619,287,020.82	21.48
Sarajevo	<u>109,163,388.93</u>	<u>3.79</u>
Total	2,882,670,451.00	100.00

Results

The following reliability indices were computed for all the centers of consumption analyzed.

- a) Anticipated number of outages (anticipated average number of outages for the center of consumption over the period of 1 year).
- b) Average duration of each disconnection (average length of the individual disconnection of the center of consumption).
- c) Anticipated annual volume of disconnection (anticipated time the center of consumption is disconnected for the period of 1 year).
- d) Average undelivered load related to each disconnection (average undelivered power at the center of consumption for each outage).
- e) Anticipated annual nondelivery of power resulting from unreliability (average power not delivered at the center of consumption over the period of 1 year).
- f) Anticipated annual economic losses resulting from unreliability (sum total of anticipated economic losses of distributors and consumers in the center of consumption over the period of 1 year).

The computation was made on a digital computer, and the results of the computation are shown in Tables 5, 6 and 7.

Although the results speak for themselves, we need to emphasize that the most unreliable of the centers of consumption analyzed are the centers of

consumption Skopje, Banja Luka and Nis. That is, if the anticipated annual undelivered power of the centers of consumption analyzed is taken as 100 percent, the Skopje center of consumption would account for 53.47 percent, the Banja Luka center of consumption 26.73 percent, and the Nis center of consumption 8.98 percent. Similarly, if the anticipated annual economic losses resulting from unreliability of the centers of consumption analyzed are taken as 100 percent, the centers of consumption exposed to the greatest risk are Skopje with 45.83 percent, Banja Luka with 21.48 percent, and Nis with 7.74 percent.

Aside from the analysis made of reliability, a check was run on the ability of the system to maintain its integrity (its ability not to break down) when single and simultaneous double failures occur. This analysis showed that the following failures bring about disintegration of the system:

1. Failure of the Djerdap HE [Hydroplant].
2. Failure of the Obrenovac TE [Thermal Plant].
3. Failure of the Ernestinovo RP [disconnection junction].
4. Failure of the Djerdap--Bor--Nis line.
5. Failure of the Obrenovac--Ernestinovo--Zagreb line.
6. Simultaneous failure of the Tuzla TE and Podlog RP.
7. Simultaneous failure of the Tuzla--Ugljevik--Ernestinovo line and the Podlog RP.
8. Simultaneous failure of the Podlog--Maribor--Krsko--Zagreb line and the Tuzla TE.
9. Simultaneous failure of the Podlog--Maribor--Krsko--Zagreb and Tuzla--Ugljevik--Ernestinovo lines.
10. Simultaneous failure of the Tuzla TE and the Piva HE.
11. Simultaneous failure of the Piva HE and the Mostar RP.
12. Simultaneous failure of the Piva--Sarajevo line and the Mostar RP.
13. Simultaneous failure of the Mostar--Sarajevo line and the Piva HE.
14. Simultaneous failure of the Tuzla--Sarajevo line and the Piva HE.

Conclusions

This paper has presented only some of the results of a far more extensive analysis, which makes it possible to offer answers to all the problems that are posed for reliability analyses, as was emphasized under a and b in the Introduction. One of the most important conclusions would be that analyses of

this kind make it possible to obtain quantitative indicators which are very important to the making of decisions in both the process of planning and also in the process of operating electric power systems. It is certain that the results of the analysis depend on the figures adopted, and so the value of the results is directly dependent upon the value of the data. Reliability indices were computed from the data adopted for 10 centers of consumption, those which are most unreliable were indicated, and the critical failures which cause the system to break down are emphasized. On the basis of the analysis made one can conclude that the unreliability of Yugoslavia's electric power system results in large part from the absence of reserve generating capacity and the system's insufficient redundancy. In conclusion we might put the question of the economic justifiability of exposure to such a risk of economic losses resulting from unreliability.

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OIL, GAS EXPLORATION, PRODUCTION, 1980-1981

Zagreb NAFTA in Serbo-Croatian No 9, Sep 82 pp 483-492

[Article by Ifet Ibrahimasic, Vlastimir Nedeljkovic and Damir Rajkovic]

[Excerpts] In spite of the economic difficulties against which the Yugoslav economy struggled in 1981 and which did not bypass our petroleum and gas production, good results were nevertheless recorded in the production of petroleum and gas.

Petroleum production increased 3.4 percent (or, rounded off, 3 percent), and gas production all of 19 percent between 1980 and 1981.

Thus in 1980 production was $4,390 \cdot 10^3$ tons of petroleum and 2.2 billion cubic meters of natural gas. At the same time 330,346 meters of deep drilling was done. This is a 1-percent increase over 1980.

Problems in purchasing imported supplies, equipment and tools had an adverse effect on overall activity not only in drilling, but also in other activities and indeed even on the level of petroleum and gas production achieved.

The shortage of foreign exchange will also have an adverse effect on the plans outlined for development of petroleum and gas up to the year 1985 and indeed even beyond.

1. Activity of INA--Naftaplin in 1981

In spite of the very problematical operating conditions which were characteristic of the 1981 business year, exceptional results were achieved in it. Petroleum and gas production was up over 1980. A higher figure was also achieved in drilling.

The fundamental difficulties in the activity of INA--Naftaplin are related to the shortage of technical equipment, spare parts and production supplies which are imported. This has often caused interruptions in the operation of the most effective drilling rigs, special apparatus for taking measurements in wells, as well as apparatus for conducting technological procedures without which wells cannot be cased. For those same reasons there was also a cutback on well repair in 1981.

The results achieved in the activity of INA--Naftaplin in 1981 should be attributed to a number of factors, among which the following especially stand out:

- i. operational effectiveness in linking together technological components in INA--Naftaplin in mastering technical problems in the overall process of operation,
- ii. introduction of our own technical solutions in all fields of technology,
- iii. reduction of unproductive time through effective preparation of operations in the OOUR's [basic organization of associated labor] involved in extraction, and so on.

A complete survey of the activity of INA--Naftaplin in 1981, with all details for the various fields of operation, i.e., from planning to sales, is covered in the internal documents of the various OOUR's, of which INA--Naftaplin had six in 1981: the GIR (Geological Explorations and Field Development), Drilling, Repair, Production, Specialized Field Operations, and Commerce. Alongside these activities there was also the activity of the work community of Joint Staff Services, which were classified by purpose as follows: Accounting and Finance, Development, Personnel Affairs, Legal and General Affairs, Planning, EOP [Electronic Data Processing], and Technical Protection.

Exploration and Field Development

In spite of numerous objective difficulties within the field of activity of the OOUR GIR, successful business results were achieved in 1981.

Because of the energy crisis priority has been given to exploration in the Pannonian Basin. The Adriatic Sea bed was of interest for stepping up intensity of operations in order to determine gas deposits in clastic and carbonate rocks. The Dinarid region was a concern mainly in the form of study related to further processing of the geological data and completion of the Poljica-1 well.

Pannonian Basin

The following localities were discovered by exploration of hydrocarbon deposits in the Pannonian Basin:

Kalinovac, Stari Gradec, Dugo Selo east, Krivaj and Velika Plana.

Tests are still under way at these localities.

In the Drava depression exploration covered seven localities. The wells Kal-5 alpha, Kal-4 and Let-5 revealed rocks saturated with hydrocarbons, while the anticipated results were not achieved in drilling the Kal-west-1 and Camagajevci-1 wells.

The Sava depression was characterized in 1981 by the highest intensity of operations. The following localities were represented:

Vrbak, Lipovljani, Dugo Selo east, Velika Plana, Laktec, Precko, Krivaj and Osekovo east.

In the Mura depression the well Str-1 (Strunkovac) was used to explore rock strata belonging to the Tertiary and its substratum.

The Slavonian-Srem depression was characterized by an interesting saturation with hydrocarbons of quartzitic and schistous breccias discovered at the locality Ilaca.

Geophysical Operations

Geophysical readings taken in 1981 at certain localities to prepare for the drilling of prospect holes were detailed. In addition, regional profiles were also run in certain depressions. In all, 1,320 km of seismic profiles were run in the field, Vibroseis accounting for 174 km of this. The height of propagation of elastic waves was measured in eight deep exploratory wells, and detailed gravimetric measurements were made in the region of Bilogora (3,700 detailed gravimetric points).

The large scope of exploratory operations in the Pannonian Basin at a large number of geological localities required the scientific and professional involvement of a large number of specialists. The following were prepared: a study evaluating the promise of the Slavonian-Srem depression and the project plan for exploration in the Pannonian Basin. Petroleum-geological-tectonic relations in the Bjelovar syncline were reinterpreted, and exploration programs were adopted for the coming period.

The Adriatic Sea Bed

In 1981 the Adriatic area was characterized by intensive exploration, as follows: geological, geophysical and exploratory drilling.

Eight wells were drilled, and drilling began at the location Istra More 1 [Istria Offshore 1].

Marine seismic recording was done over 2,419 km of profiles, and measurements were made of seismic velocities in three wells and seismic tests were run on the seabed at six locations.

Dinarids

The activity of exploring hydrocarbon deposits in the Dinarids is exceptionally complicated not only because of the depth of the wells, but also because of the need for quite thorough and lasting scientific and professional involvement of geologists, geophysicists, geochemists and other scientific-technical specialists. The specific activity of exploring deposits in the Dinarids during 1981 had to do with drilling the Poljica-1 deep well.

In view of what we have learned so far about the conditions of stratification of the Dinarid rocks, appropriate exploratory activity will be devoted to this region in the future.

In view of the complexity of the areas of exploration, manifested in the essentially differing conditions under which the deposits occur in the Pannonian, the Dinarids and the offshore Adriatic, a conclusion can be drawn concerning the difficulties along the way to obtaining effective results.

Drilling

Results of OOUR's Achieved in 1981

Table 1 shows the results of drilling in 1981; they exceeded those for 1980. Development drilling had a larger share than exploratory drilling. The greatest difficulty in these operations had to do with production supplies. The shortage of bits of appropriate diameters, certain types of casing and drilling mud, tended to increase the nonproductive time of drilling rigs. The breakdowns that occurred at certain wells (Poljica-1, Krivaj-1, Kal-4, Kal-5, VR-1, Di-1) were worked out on an ad hoc basis with more or less success. In spite of these difficulties, an output of 80,676 meters of exploratory drilling is a very great success in operation in view of the shortage of appropriate production supplies.

The figure for development drilling was 120,997 meters, which was mostly done with worn-out drilling rigs. In large part this success was achieved by adopting equipment manufactured in Yugoslavia. Thanks to superb maintenance of installations, improved organization of work, reduction of "idling" to the minimum and improved coordination of the five other OOUR's which participate in drilling wells, the expected, i.e., satisfactory, output was achieved, even though imported production supplies were lacking for development drilling, inappropriate bits, drilling cables, drilling mud materials and so on were used.

In 1981 the OOUR "Drilling" carried out operations to explore for geothermal water (a total of 6,069 meters). One deep well (Petisovci), the Globoki-6, was sunk for the work organization INA--Nafta Lendava. The technology and operations in drilling that well attained a substantial technical level.

Aside from the drilling work surveyed in Table 1, the OOUR "Drilling" of INA--Naftapljin did 7,019 meters of drilling in Iraq during 1981. And then 3,176 meters were drilled from its platform "Zagreb" in the Mediterranean for Libya.

Of total exploratory drilling done in 1981 (80,676 meters), the Pannonian Basin accounts for 64,837 meters, the Dinarids 3,628 meters, and the offshore Adriatic from the platform "Panon" 12,211 meters.

The average depth achieved in 1981 was 2,656 meters for exploratory wells and 1,881 meters for production wells.

Taking into account the more difficult natural conditions for operation because of overcoming the problems related to reaching greater depths in the

Pannonian Basin (high temperatures and pressures, cases of loss of recycling of mud, the opening up of rocks containing carbon dioxide, hydrogen sulfide and other mineral substances), and the shortage of production supplies, it can be said that the OOUR "Drilling" recorded worthwhile performance in its operation in 1981.

Table 1. Results of Drilling for INA--Naftaplin in 1981

<u>Description</u>	<u>1980</u>	<u>1981</u>
1. Total drilling in meters:	196,152.80	201,673.00
a. Exploratory drilling for petroleum and gas	60,378.50	80,676.00
b. Development drilling for petroleum and gas	135,774.30	120,997.00
2. Number of wells drilled:	111	122
a. Exploratory for petroleum and gas	34	45
b. Development for petroleum and gas	77	77
3. Drilling success:		
a. Total wells cased	111	122
b. Positive for petroleum and gas	53	59
c. Dry (negative) wells	33	28
d. Wells being tested and also new sites	25	25
4. Number of drilling rigs in operation	15.71	16.49
5. Meters drilled per rig	12,486	12,230

Production

Results of OOUR's Achieved in 1981

Table 2 shows the results achieved in petroleum and gas production in 1981. These results are higher than those in the previous year. Of the total of 23 petroleum deposits, production in 1981 should be attributed to the following deposits when the comparison is made to production in 1980: Benicanci, Struzec, Klostar, Ivanic Grad, Sandrovac, Zutica, Jamarica, Lipovljani, Bilogora and Stevkovica, as well as to those low-output deposits which contributed to what amounted even to overfulfillment of the target for total production.

Table 2. Petroleum and Gas Production in INA--Naftaplin in 1981

<u>Description</u>	<u>1980 Result</u>	<u>1981 Result</u>
Petroleum in tons	3,056,388	3,140,777
Gas in thousands of cubic meters:		
a) Natural gas	707,022	784,061
b) Casinghead gas	276,219	384,867
Total	983,241	1,168,928
Liquefied gas in "t"	53,405	81,111

Foreign Operations

Within the OOUR GIR of INA--Naftaplin the Foreign Operations Service was quite active during 1981. Continuity of operations was maintained in countries where

INA--Naftaplin previously had work sites. In addition, activity was expanded in seeking out opportunities for marketing knowledge, equipment and technology abroad in the field of petroleum mining, whose scope has already been confirmed in the world. Here is a short survey of INA--Naftaplin's activity in foreign countries during 1981.

Iraq

The drilling of the fourth well in Iraq under contract with INOC was completed, and the contract was extended to drilling two more wells, the fifth of which is now being tested. On the basis of a contract between INOC and Naftaplin one drilling crew from INA--Naftaplin is now training Iraqi workers in that country to work independently on their Emsco-1500 drilling rig. Talks are now being conducted concerning the possibility of including one of our repair installations in the work in Iraq, and there are also talks on continuation of drilling.

Angola

Naftaplin has a share of 5 percent in the offshore exploration (Block 3). The operator is the French firm Elf Aquitaine. The Palanca-1 well was drilled; from two intervals the rock has a total petroleum yield of over 900 cubic meters per day. The density of the petroleum is 0.83 kg per cubic decimeter. Work has been going on to drill the well Pacassa-1 at another structure. A decision was made to drill a second well, Palanca-2, in Block 3, which was done.

Naftagas and INA--Naftaplin submitted a bid for exploring the area indicated as Block 1. The Angolan company Sonangol has offered Naftaplin a share of 7.5 percent. The operator chosen was the Italian AGIP. Naftaplin submitted a bid to Sonangol for exploring deposits in Block 8 in which INA--Naftaplin would be the operator.

Indonesia

Seismic shooting in the offshore area of North Sakala, in the eastern portion of the Java Sea, has been completed, and 6,523 km of profiles were recorded. In these operations the operator was the Italian AGIP, while Naftaplin was involved with a share of 20 percent. After processing of the data from the seismic shooting, it is probable that an exploratory well will be located; drilling of that well could begin during 1982.

China

In an area around the island Hainan in the south of China seismic shooting was done in which Naftaplin participated with a large number of world companies. The American Amoco was the operator in these operations. Since the interpretations of the seismic shots have been completed, offers of further work in this area are expected. An offer is also expected from the Chinese side for exploration in the region of the Yellow Sea, where the French Elf would be the operator, and Naftaplin would participate in the work.

Vietnam

The following participated in work for the company Petrolvietnam in the South China Sea: the Italian AGIP as operator, and INA--Naftaplin and the Spanish Hispanoil as participants. Since AGIP was unable to reduce its share of 80 percent, after obligations under the contract were performed for the full 3 years, the contract with Petrolvietnam was terminated.

North Korea

In 1981 a geological study of an exploratory area of the Korean Gulf was made on the basis of geophysical data. Korea kept for itself Block C, and TOTAL and Deminex withdrew from this project. INA--Naftaplin and Naftagas then informed KITC that they were canceling the contract after completion of the first phase. Later Korea offered Block C, but it did not manage to find a partner. Thus seismic work has been completed for Korea in Block C, and our specialists also made the interpretation. The work site has still been retained in Korea because of the circumstances set forth.

Gabon

In its work in Gabon INA--Naftaplin is still maintaining its 20-percent share, while the other partners have given up their share to the French Elf. The location of the next well has been determined. Commencement of operations has been dependent upon purchasing a drilling platform.

The Offshore Adriatic (Foreign Partners)

Three new Adriatic OOUR's have been organized within INA--Naftaplin in order to explore offshore Adriatic deposits with foreign partners: Jabuka, Mijet and Palagruza. The necessary preparatory steps with respect to legal procedure have been taken for this transaction within INA--Naftaplin so that this activity can be carried out in our country.

In 1981 INA--Naftaplin completed the purchase of the semisubmersible platform "Gulnare" from a Norwegian owner, and at the end of June it was taken over in Palermo. The platform was renamed the "Zagreb I."

That platform was put to work for the Italian firm AGIP, and the leasing contract on the platform will expire in early 1982. After that the "Zagreb I" platform will be put to purposive use in conformity with the activity of INA--Naftaplin in exploring hydrocarbon deposits beneath the seabed of the Adriatic, where the depths are greater than those for which the platform "Panon," supported by legs, is intended.

2. Exploration and Production of Petroleum and Gas Within the Work Organization Naftagas

Last year the business was operated under complicated economic conditions, which was manifested in the difficulties of purchasing imported equipment. The outdated drilling rigs and the lack of spare parts and supplies

necessitated a particular effort in meeting planning targets. Capital investment projects were carried out with great difficulties because of the lack of imported equipment.

In spite of all the problems which accompanied operations last year, the anticipated rate of operations was maintained, the planning targets were by and large fulfilled, and to some extent even exceeded, so that it can be said that the business year ended with success.

Activities were carried on mainly in SAP [Socialist Autonomous Province] Vojvodina. Operations to explore for petroleum abroad were continued, and one drilling rig was employed in exploratory drilling for Jordan.

Various activities and efforts were undertaken to preserve normal business operation in the context of the shortage of foreign exchange and the campaign to stabilize the economy.

The results achieved in exploration and production can be seen in Tables 3 and 4. Those same tables also show the results achieved in 1980.

Table 3. Drilling Results in Naftagas in 1981

<u>Description</u>	<u>1980</u>	<u>1981</u>
1. Total drilling in meters:	132,422	128,673.0
a. Exploratory drilling for petroleum and gas	70,855	56,571.0
b. Development drilling for petroleum and gas	61,537	72,102.0
2. Number of wells drilled:	75	74
a. Exploratory for petroleum and gas	33	25
b. Development for petroleum and gas	42	49
3. Drilling success:		
a. Wells positive for petroleum and gas	45	49
b. Negative wells	8	5
c. Wells being tested	17	20
4. Number of drilling rigs in operation	10	9.2
5. Meters drilled per rig	13,242	13,986

Table 4. Petroleum and Gas Production in Naftagas in 1981

<u>Description</u>	<u>1980 Result</u>	<u>1981 Result</u>
Petroleum in tons	1,183,293	1,244,459
Gas in thousands of cubic meters:	875,696	1,061,220
a) Natural gas	728,523	867,894
b) Casinghead gas	147,173	193,326

More detailed information on activities and problems will be given in the survey by the work organization's various technological activities.

Geological and Geophysical Operations

These operations are carried on by the Sector for Exploration, which has a staff of 89, among them 54 with higher specialized training.

Aside from processing geological data and completing supplemental regional explorations in SAP Vojvodina, there was no major activity in geological operations.

As for geophysical tests, the reflection technique of seismic shooting was done by the method of multiple overlapping. The new 3-D seismic method (three-dimensional seismic profiling) was used for the first time. The operations plan was fulfilled at a level of 96.5 percent. The goal of seismic work was to define in more detail the existing structural forms, to initiate new ones, and to prepare for exploratory drilling.

The purpose of exploratory drilling was to discover new petroleum and gas deposits and to contour deposits already discovered. The greatest intensity of operations was in the area of northern and central Banat. As Table 3 shows, 25 exploratory and step-out wells were drilled. The plan was fulfilled at a level of 96.0 percent.

A great deal of time was spent and work done on assimilations (osvajanja), testing interesting intervals in exploratory wells and processing the data. Poor reservoir rock conditions and extremely low permeability necessitated the use of stimulative methods. It is evident from Table 3 that 20 of the 25 wells drilled are in the testing phase, which means that there will be a great deal more work to do in the coming period.

The Sector for Exploration is also involved in exploring for and using thermomineral waters, and evident results have been achieved in this field as well. We will not speak specifically about this in the present report.

The following should be mentioned in the domain of foreign exploration for petroleum and gas:

- i. In Algeria, on the parcel Garet Tasselit, interpretation of seismic measurements was completed, and two wells were located. At one location 314 meters were drilled. Drilling is under way. The work is being done by Naftagas--Algerie.
- ii. In an exploratory area in Angola Naftagas and Naftaplín are participating in exploring for petroleum with three other foreign partners. The operator is Elf Aquitaine Angola. The well Pal-1 was drilled and yielded commercial quantities of petroleum in testing. Two wells are in the drilling phase.
- iii. In an area in Tunisia 777 km of seismic profiles were done and preparations conducted for drilling a second well. Naftagas' partners in financing are AGIP and Petrosud. The operator is AGIP.

iv. In Gabon, in the area Cama Marin, Naftagas has a share of 10 percent in exploration costs. The operator is Naftaplín. Preparations are being made for drilling one well.

v. In China explorations have been completed as called for by obligations under the contract, and in Korea further explorations have been broken off.

Aside from what we have said, work was done in the Sector for Exploration on the study processing of data, preparation of analyses, detailed reports, programs, etc.

Field Development

The work of drafting the plan for production, well stimulation, physicochemical analysis and hydrodynamic measurement is regarded as current and operational work in the domain of field development. The sector for field development is responsible for drilling development wells. As is evident in Table 3, during last year 49 development (production) wells were drilled. The annual plan was fulfilled at a level of 113 percent. The plan for intensification of production of certain fields was carried out by drilling certain production wells.

As for the use of supplemental methods of petroleum production, work was done in drafting a detailed report for use of a pilot test in the fields Jermenovci and Velebit. A contract with the Hungarian firm Tesco has been prepared for test injection of air into a well in the Jermenovci field, the purpose of which would be to test the process of underground petroleum combustion. The Dutch firm Servo completed laboratory tests with a view to injecting surface-active agents and polymers into the Velebit deposit. A detailed report is also being written for the pilot test in connection with this question.

Aside from what we have said, as part of field development detailed reports are being written on petroleum and gas reserves, mathematical simulation, the principal petroleum engineering projects, etc.

Drilling

Drilling was done mainly by nine drilling rigs, i.e., with one less than in 1980 because one rig was sent to Jordan to do exploratory drilling in that country. Nevertheless, the drilling plan was fulfilled at a level of 100.52 percent. The average drilling depth was 1,760 meters. In Jordan one well was drilled to more than 3,000 meters.

There was unproductive drilling time because of interruptions in transportation and waiting for service: logging, cementing, etc.

Problems have been arising because the drilling rigs are old and because of the lack of spare parts, tools and production supplies.

Petroleum and Gas Production

Petroleum and gas production is shown in Table 4. The plan for petroleum production was fulfilled at a level of 101.6 percent, and that of casinghead gas production at a level of 103.9 percent, while natural gas production fell short, i.e., the plan was fulfilled at a level of 95.5 percent, which was the result of unrealistic planning of consumption.

Aside from current business, the Production Sector was involved in preparing petroleum engineering projects, capital investment documentation, and programs, studies and analyses.

The need for the large amount of repairs caused considerable difficulties in fulfilling the production plan; 62 out of the 497 wells planned were not in operation.

Mobile rigs for petroleum production were used on the new and smaller fields, which helped to fulfill the production plan.

The difficulties were similar to those in other activities.

Glance at Activities in 1982

The plans for 1982 call for drilling 127,450 meters and producing 1,300,500 tons of petroleum and 1,080,802,500 cubic meters of gas. It is expected that this year, just like last year, exceptional efforts will be required to fulfill the anticipated volume of drilling and production. Operations will be accompanied by difficulties similar to those in 1981. Far greater efforts will be needed to manufacture domestic equipment. It is expected that the problems of producing gas containing carbon dioxide will be worked out in the coming year.

3. Drilling Results in Yugoslavia in 1981

Although the drilling volume of 330,346 meters represents an increase of only 1 percent over the previous year, which is the basic feature of drilling in 1981, we certainly should add to this the problems in purchasing supplies, equipment and tools, which makes the results achieved still more worthwhile. The emphasis is still on exploratory drilling, which increased 5 percent over 1980 (Table 5), which is altogether in line with the needs of development and discovery of new reserves of petroleum and gas. The volume of exploratory drilling increased especially in INA--Naftaplin, where the increase was all of 34 percent over 1980; the growth in Naftagas was less. The bulk of the drilling is still taking place in the Panonian Basin, where the level of exploration is very high because work has been under way for many years. That is why the average drilling depth is rising steadily, the natural conditions for operation are becoming more and more difficult, and there is an ever greater risk in the sense of the percentage of negative (dry) wells.

Yet the figures for 1981 show that the share of negative wells in the total number of wells drilled is nevertheless considerably lower than in the previous

year and amounts to 35.2 percent. This is indicative of good prior preparation of every location, for which credit is due to activities involved in the process of drilling the wells, and it also indicates an enviable level of organization of work. When we add to this the increase, though slight, in the output per rig in spite of the use of inappropriate tools and other production supplies, the drilling results in 1981 can be looked upon as very good.

Table 5. Drilling Results in Yugoslavia in 1981

<u>Drilling Results</u>	<u>1980</u>	<u>1981</u>	<u>Index 81/80</u>
INA--Naftaplin			
1. Total drilling done in meters:	196,153	201,673	103
a. Exploratory drilling	60,379	80,676	134
b. Production drilling	135,774	120,997	89
2. Number of wells drilled:	111	122	110
a. Exploratory	34	45	132
b. Production	77	77	100
3. Drilling success:			
a. Positive wells	58	64	110
b. Negative wells	53	48	91
c. Share of negative wells in total wells drilled, %	47.70	39.30	--
4. Number of rigs in operation	15.71	16.49	105
5. Number of meters drilled per rig	12,486	12,230	98
Naftagas			
1. Total drilling done in meters:	132,422	128,673	97
a. Exploratory drilling	70,855	56,571	80
b. Production drilling	61,537	72,102	117
2. Number of wells drilled:	75	74	99
a. Exploratory	33	25	76
b. Production	42	49	117
3. Drilling success:			
a. Positive wells	51	53	104
b. Negative wells	24	21	88
c. Share of negative wells in total wells drilled, %	32.00	28.40	--
4. Number of rigs in operation	10.00	9.20	92
5. Number of meters drilled per rig	13,242	13,986	106
Total			
1. Total drilling done in meters:	328,575	330,346	101
a. Exploratory drilling	131,264	137,247	105
b. Production drilling	197,311	143,099	98

Table 5 (continued)

<u>Drilling Results</u>	<u>1980</u>	<u>1981</u>	<u>Index 81/80</u>
2. Number of wells drilled:	186	196	105
a. Exploratory	67	70	104
b. Production	119	126	106
3. Drilling success:			
a. Positive wells	109	117	107
b. Negative wells	77	69	90
c. Share of negative wells in total wells drilled, %	41.00	35.20	--
4. Number of rigs in operation	25.71	25.69	100
5. Number of meters drilled per rig	12,780	12,859	101

4. Petroleum and Gas Production

In 1981 total petroleum and gas production showed continued growth over 1980, which is very significant in the context of the general aspiration to meet as much of Yugoslavia's energy needs as possible from domestic sources. The total growth of petroleum production was 146,000 tons, which is 3 percent more than in the previous year. Overall production was achieved from existing petroleum reservoirs through better use of reservoir conditions and drilling bit time. It should also be borne in mind that most of the reservoirs are near the end of the process of primary production, which necessitates considerably larger investments of work and resources, which makes the significance of increasing output still greater.

This means that a whole series of technical problems had to be conquered, mainly problems related to the inadequate capacity of repair rigs, lateness and inadequate delivery of subsurface pumps and other equipment related to the mechanized method of production, etc.

We should also mention that steps are being taken so that as many reservoirs as possible with unfavorable conditions of dissolved gas and gas cap are brought into a more favorable relationship of marginal water by artificial water injection. It can be said that even today almost 80 percent of the reservoirs have that favorable set of conditions which has the best impact on extraction from the reservoir.

Gas production was also increased, and that a total of all of 19 percent over the previous year, which represents a considerable increase. The two work organizations had an almost equal share in this, thanks above all to construction of a certain number of gas pipelines, reconstruction of certain pumping stations, the work done on the dynamic behavior of demand and consumption, and the initial operation of our largest gas field, Molve.

Table 6. Oil and Gas Production in Yugoslavia

<u>Petroleum Production (10³ tons)</u>	<u>1980</u>	<u>1981</u>	<u>Index 81/80</u>
INA--Naftaplin	3,056	3,141	103
Naftagas	1,183	1,244	105
INA--Nafta Lendava	<u>5</u>	<u>5</u>	<u>100</u>
Total	4,244	4,390	103
<u>Natural Gas Production (millions of cubic meters)</u>			
INA--Naftaplin	983	1,169	119
Naftagas	876	1,061	121
INA--Nafta Lendava	<u>--</u>	<u>--</u>	<u>--</u>
Total	1,859	2,230	119

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